CHAPTER 25

EQUIPMENT/FURNISHINGS

LIST OF EFFECTIVE PAGES

N, R or D indicates pages which are New, Revised or Deleted respectively.

Remove and insert the affected pages and complete the Record of Revisions and the Record of Temporary Revisions as necessary.

CHAPTER 25

EQUIPMENT/FURNISHINGS

LIST OF EFFECTIVE PAGES

N, R or D indicates pages which are New, Revised or Deleted respectively.

Remove and insert the affected pages and complete the Record of Revisions and the Record of Temporary Revisions as necessary.

CH/SE/SU	C	PAGE	DATE	CH/SE/SU	C	PAGE	DATE
S.B.LIST	R	1	May 31/03	T. of C.		25	Mar 31/99
S.B.LIST	R	2	May 31/03	T. of C.		26	Mar 29/96
S.B.LIST	R	3	May 31/03	T. of C.		27	Mar 29/96
S.B.LIST	R	4	May 31/03	T. of C.		28	Mar 29/96
S.B.LIST	R	5	May 31/03	T. of C.		29	Mar 29/96
S.B.LIST	R	6	May 31/03				
S.B.LIST	R	7	May 31/03	25-00-00		701	Mar 27/97
S.B.LIST	R	8	May 31/03	25-00-00		702	Mar 27/97
S.B.LIST	R	9	May 31/03	25-00-00		703	Mar 27/97
S.B.LIST	R	10	May 31/03	25-00-00		704	Mar 27/97
S.B.LIST	R	11	May 31/03	25-00-00		705	Mar 27/97
S.B.LIST	R	12	May 31/03	25-00-11		601	Feb 28/79
S.B.LIST	N	13	May 31/03	25-00-11		602	Feb 28/79
S.B.LIST	N	14	May 31/03	25-00-11		603	May 30/78
S.B.LIST	N	15	May 31/03	25-00-11		801	May 30/76
				25-00-11		802	May 30/76
T. of C.		1	Mar 27/97	25-00-11		803	May 30/76
T. of C.		2	Mar 29/96	25-00-11		804	Feb 28/77
T. of C.		3	Mar 29/96	25-00-11		805	May 30/76
T. of C.		4	Mar 29/96	25-00-11		806	May 30/76
T. of C.		5	Mar 29/96	25-00-11		807	May 30/76
T. of C.		6	Mar 29/96	25-00-11		808	May 30/76
T. of C.		7	Mar 29/96	25-00-11		809	May 30/76
T. of C.		8	Mar 29/96	25-00-11		810	Feb 28/77
T. of C.		9	Mar 29/96	25-00-11		811	May 30/76
T. of C.		10	Mar 29/96	25-00-11		812	Feb 28/77
T. of C.		11	Mar 29/96	25-00-11		813	May 30/76
T. of C.		12	Mar 29/96	25-00-11		814	Sep 30/88
T. of C.		13	Mar 29/96	25-00-11		815	Sep 30/90
T. of C.		14	Mar 27/97	25-00-12		801	May 30/76
T. of C.		15	Mar 29/96	25-00-12		802	May 30/76
T. of C.		16	Mar 29/96	25-00-12		803	May 30/76
T. of C.		17	Mar 29/96	25-00-12		804	May 30/76
T. of C.		18	Mar 29/96	25-00-12		805	May 30/76
T. of C.		19	Mar 29/96	25-00-12		806	May 30/76
T. of C.		20	Mar 29/96	25-00-12		807	May 30/76
T. of C.		21	Mar 29/96	25-00-12		808	May 30/76
T. of C.		22	Mar 29/96	25-00-12		809	May 30/76
T. of C.		23	Mar 29/96	25-00-12		810	May 30/76
T. of C.		24	Mar 31/98				

CH/SE/SU	C	PAGE	DATE	CH/SE/SU	C	PAGE	DATE
25-11-00		1	Feb 28/78	25-11-11		416	Feb 28/79
25-11-00		2	Aug 30/75	25-11-11		417	Feb 28/79
25-11-00		3	Feb 28/78	25-11-11		418	Feb 28/79
25-11-00		4	Feb 28/78	25-11-11		419	Feb 28/79
25-11-00		5	Aug 30/75	25-11-11		420	Feb 28/79
25-11-00		6	Feb 28/78	25-11-11		421	Feb 28/79
25-11-11		1	Nov 30/77	25-11-11		422	Feb 28/79
25-11-11		2	May 30/83	25-11-11		423	Feb 28/79
25-11-11		3	Aug 30/75	25-11-11		424	Feb 28/79
25-11-11		4	Aug 30/75	25-11-11		425	Feb 28/79
25-11-11		5	Nov 30/75	25-11-11		426	Feb 28/79
25-11-11		6	Nov 30/77	25-11-11		427	Feb 28/79
25-11-11		7	Nov 30/75	25-11-11		428	Feb 28/79
25-11-11		8	Aug 30/75	25-11-11		429	Feb 28/79
25-11-11		101	Feb 28/78	25-11-11		430	Feb 28/79
25-11-11		102	Feb 28/78	25-11-11		431	Feb 28/79
25-11-11		103	Feb 28/78	25-11-11		432	Feb 28/79
25-11-11		104	Feb 28/78	25-11-11		433	Feb 28/79
25-11-11		105	May 30/78	25-11-11		434	Feb 28/79
25-11-11		106	Feb 28/78	25-11-11		435	Feb 28/79
25-11-11		107	May 30/83	25-11-11		501	Nov 30/77
25-11-11		108	May 30/83	25-11-11		502	May 30/83
25-11-11		109	May 30/78	25-11-11		503	May 30/83
25-11-11		110	May 30/78	25-11-11		504	May 30/83
25-11-11		111	May 30/78	25-11-11		505	Aug 30/80
25-11-11		112	May 30/78	25-11-11		506	Nov 30/77
25-11-11		113	May 30/78	25-11-11		507	Nov 30/77
25-11-11		114	May 30/78	25-11-11		508	May 30/83
25-11-11		115	May 30/78	25-11-11		509	Nov 30/77
25-11-11		116	May 30/78	25-11-11		510	Nov 30/77
25-11-11		117	May 30/78	25-11-11		511	Nov 30/77
25-11-11		118	May 30/78	25-11-11		512	May 30/83
25-11-11		119	May 30/78	25-11-11		601	Feb 28/81
25-11-11		120	Nov 30/79	25-11-11		602	May 30/83
25-11-11		121	Nov 30/79	25-11-11		603	May 30/83
25-11-11		401	Feb 28/79	25-11-11		604	May 30/83
25-11-11		402	Feb 28/79	25-11-11		605	Nov 30/81
25-11-11		403	Feb 28/79	25-11-11		606	May 30/83
25-11-11		404	Nov 30/78	25-11-18		401	Feb 28/78
25-11-11		405	May 30/83	25-11-18		402	Feb 28/78
25-11-11		406	Aug 30/80	25-11-18		403	Feb 28/78
25-11-11		407	Nov 30/78	25-11-18		404	Feb 28/78
25-11-11		408	Nov 30/78	25-11-18		405	Feb 28/78
25-11-11		409	Feb 28/79	25-11-18		406	Feb 28/78
25-11-11		410	Feb 28/79	25-11-21		1	May 30/78
25-11-11		411	Feb 28/79	25-11-21		2	May 30/78
25-11-11		412	Feb 28/79	25-11-21		3	Nov 30/75
25-11-11		413	Feb 28/79	25-11-21		4	Nov 30/75
25-11-11		414	Feb 28/79	25-11-21		5	May 30/78
25-11-11		415	Feb 28/79	25-11-21		6	Nov 30/75

CH/SE/SU	C	PAGE	DATE	CH/SE/SU	C	PAGE	DATE
25-11-21		7	Nov 30/75	25-11-21		430	Mar 29/96
25-11-21		8	Nov 30/75	25-11-21		431	Mar 29/96
25-11-21		101	Nov 30/75	25-11-21		432	Mar 29/96
25-11-21		102	May 30/77	25-11-21		433	Mar 29/96
25-11-21		103	May 30/77	25-11-21		434	Mar 29/96
25-11-21		104	May 30/77	25-11-21		435	Mar 29/96
25-11-21		105	May 30/77	25-11-21		501	Nov 30/75
25-11-21		106	May 30/77	25-11-21		502	Nov 30/77
25-11-21		107	Aug 30/78	25-11-21		503	Nov 30/77
25-11-21		108	May 30/77	25-11-21		504	Nov 30/77
25-11-21		109	May 30/77	25-11-21		505	Nov 30/75
25-11-21		110	May 30/77	25-11-21		506	Nov 30/77
25-11-21		111	May 30/77	25-11-21		507	May 30/76
25-11-21		112	May 30/77	25-11-21		508	May 30/76
25-11-21		113	May 30/77	25-11-21		509	Nov 30/77
25-11-21		114	May 30/77	25-11-21		510	May 30/76
25-11-21		115	May 30/77	25-11-21		511	May 30/76
25-11-21		116	May 30/77	25-11-21		601	Feb 28/81
25-11-21		117	May 30/77	25-11-21		602	Feb 28/81
25-11-21		118	Nov 30/79	25-11-21		603	Feb 28/81
25-11-21		119	Nov 30/79	25-11-21		604	Feb 28/81
25-11-21		401	Mar 29/96	25-11-21		605	Feb 28/81
25-11-21		402	Mar 29/96	25-11-23		401	Aug 30/77
25-11-21		403	Mar 29/96	25-11-23		402	Aug 30/77
25-11-21		404	Mar 29/96	25-11-23		403	Aug 30/77
25-11-21		405	Mar 29/96	25-11-23		404	Aug 30/77
25-11-21		406	Mar 29/96	25-11-23		405	Aug 30/77
25-11-21		407	Mar 29/96	25-11-23		406	Nov 30/76
25-11-21		408	Mar 29/96	25-11-31		1	May 30/79
25-11-21		409	Mar 29/96	25-11-31		2	May 30/79
25-11-21		410	Mar 29/96	25-11-31		3	Nov 30/75
25-11-21		411	Mar 29/96	25-11-31		4	May 30/79
25-11-21		412	Mar 29/96	25-11-31		5	May 30/79
25-11-21		413	Mar 29/96	25-11-31		6	Nov 30/75
25-11-21		414	Mar 29/96	25-11-31		7	Nov 30/75
25-11-21		415	Mar 29/96	25-11-31		8	Nov 30/75
25-11-21		416	Mar 29/96	25-11-31		9	Nov 20/77
25-11-21		417	Mar 29/96	25-11-31		10	Nov 20/77
25-11-21		418	Mar 29/96	25-11-31		11	Nov 30/75
25-11-21		419	Mar 29/96	25-11-31		101	Nov 30/75
25-11-21		420	Mar 29/96	25-11-31		102	Jun 30/75
25-11-21		421	Mar 29/96	25-11-31		103	Jun 30/75
25-11-21		422	Mar 29/96	25-11-31		104	Jun 30/75
25-11-21		423	Mar 29/96	25-11-31		105	Jun 30/75
25-11-21		424	Mar 29/96	25-11-31		106	Jun 30/75
25-11-21		425	Mar 29/96	25-11-31		107	Jun 30/75
25-11-21		426	Mar 29/96	25-11-31		108	Jun 30/75
25-11-21		427	Mar 29/96	25-11-31		109	Jun 30/75
25-11-21		428	Mar 29/96	25-11-31		110	Jun 30/75
25-11-21		429	Mar 29/96	25-11-31		111	Jun 30/75

CH/SE/SU	C	PAGE	DATE	CH/SE/SU	C	PAGE	DATE
25-11-31		112	Jun 30/75	25-11-31		442	Aug 30/79
25-11-31		113	Jun 30/75	25-11-31		443	Aug 30/79
25-11-31		114	Jun 30/75	25-11-31		444	Aug 30/79
25-11-31		115	Jun 30/75	25-11-31		445	Aug 30/79
25-11-31		116	Jun 30/75	25-11-31		446	Aug 30/79
25-11-31		117	Jun 30/75	25-11-31		447	Aug 30/79
25-11-31		118	Jun 30/75	25-11-31		448	Aug 30/79
25-11-31		119	Nov 30/79	25-11-31		449	Aug 30/79
25-11-31		120	Nov 30/79	25-11-31		450	Aug 30/79
25-11-31		401	May 30/79	25-11-31		451	Aug 30/79
25-11-31		402	Aug 30/79	25-11-31		452	Aug 30/79
25-11-31		403	Nov 30/77	25-11-31		501	Feb 28/77
25-11-31		404	May 30/79	25-11-31		502	Feb 29/76
25-11-31		405	Aug 30/80	25-11-31		503	Feb 29/76
25-11-31		406	May 30/79	25-11-31		504	Nov 30/77
25-11-31		407	Nov 30/77	25-11-31		505	Nov 30/77
25-11-31		408	Aug 30/80	25-11-31		506	Nov 30/77
25-11-31		409	Nov 30/77	25-11-31		507	Feb 28/77
25-11-31		410	May 30/79	25-11-31		508	Feb 28/77
25-11-31		411	Aug 30/79	25-11-31		509	Feb 28/78
25-11-31		412	May 30/79	25-11-31		510	Feb 29/76
25-11-31		413	May 30/79	25-11-31		511	Feb 29/76
25-11-31		414	May 30/79	25-11-31		512	Feb 28/78
25-11-31		415	May 30/79	25-11-31		513	Feb 29/76
25-11-31		416	Aug 30/79	25-11-31		514	Feb 28/78
25-11-31		417	Aug 30/79	25-11-31		515	Feb 29/76
25-11-31		418	May 30/79	25-11-31		516	Feb 29/76
25-11-31		419	May 30/79	25-11-31		517	Feb 29/76
25-11-31		420	May 30/79	25-11-31		518	Nov 30/77
25-11-31		421	Aug 30/79	25-11-31		519	Nov 30/78
25-11-31		422	Aug 30/79	25-11-31		520	Nov 30/78
25-11-31		423	Aug 30/79	25-11-31		601	Feb 28/81
25-11-31		424	Aug 30/79	25-11-31		602	Feb 28/81
25-11-31		425	Aug 30/79	25-11-31		603	Feb 28/81
25-11-31		426	May 30/79	25-11-31		604	Feb 28/81
25-11-31		427	Aug 30/79	25-11-31		605	Feb 28/81
25-11-31		428	Aug 30/79	25-11-31		606	Feb 28/81
25-11-31		429	Aug 30/79	25-11-41		1	Nov 30/77
25-11-31		430	Aug 30/79	25-11-41		2	Sep 30/86
25-11-31		431	Aug 30/79	25-11-41		3	Nov 30/77
25-11-31		432	Aug 30/79	25-11-41		4	Aug 30/76
25-11-31		433	Aug 30/79	25-11-41		5	Nov 30/77
25-11-31		434	Aug 30/79	25-11-41		6	Nov 30/77
25-11-31		435	Aug 30/79	25-11-41		101	Jun 30/75
25-11-31		436	Aug 30/79	25-11-41		102	May 30/76
25-11-31		437	Aug 30/79	25-11-41		103	Sep 30/86
25-11-31		438	Aug 30/79	25-11-41		104	May 30/76
25-11-31		439	Aug 30/79	25-11-41		401	Nov 30/77
25-11-31		440	Aug 30/79	25-11-41		402	Nov 30/77
25-11-31		441	Aug 30/79	25-11-41		403	Nov 30/77

CH/SE/SU	C	PAGE	DATE	CH/SE/SU	C	PAGE	DATE
25-11-41		404	Aug 30/80	25-13-11		403	Nov 30/80
25-11-41		405	Nov 30/77	25-13-11		404	Feb 28/78
25-11-41		501	Nov 30/77	25-13-11		801	Mar 31/98
25-11-41		502	Nov 30/77	25-13-11		802	Nov 30/77
25-11-41		503	Nov 30/77	25-13-11		803	Mar 31/98
25-11-41		601	May 30/81	25-13-11		804	Mar 31/98
25-11-41		602	May 30/81	25-13-12		401	Nov 30/75
25-11-41		603	Feb 28/81	25-13-12		402	Nov 30/75
25-11-41		604	Feb 28/81	25-13-12		403	Nov 30/75
25-11-41		605	May 30/81	25-13-12		404	Nov 30/75
25-11-51		1	Aug 30/77	25-13-12		601	Feb 28/78
25-11-51		2	Jun 30/75	25-13-12		602	Feb 28/78
25-11-51		401	Nov 30/78	25-13-12		603	Nov 30/77
25-11-51		402	Jun 30/75	25-13-12		604	Nov 30/77
25-11-51		403	Nov 30/78	25-13-13		401	Feb 29/76
25-11-51		501	Nov 30/78				
25-11-51		502	Jun 30/75	25-21-00		1	May 30/83
25-11-51		503	Nov 30/78	25-21-00		2	Nov 30/85
25-11-51		601	Nov 30/80	25-21-00		3	Mar 31/95
				25-21-00		4	May 30/80
25-12-00		1	Aug 30/77	25-21-00		5	May 30/80
25-12-00		2	Jun 30/75	25-21-00		6	Mar 31/95
25-12-00		3	Jun 30/75	25-21-00		7	Aug 30/79
25-12-00		4	Aug 30/79	25-21-00		8	Nov 30/85
25-12-00		5	Nov 30/85	25-21-00		9	Nov 30/85
25-12-00		6	Aug 30/79	25-21-12		401	May 30/78
25-12-00		7	Jun 30/75	25-21-12		402	May 30/78
25-12-00		8	Aug 30/79	25-21-12		403	May 30/78
25-12-00		9	Aug 30/79	25-21-12		404	May 30/78
25-12-00		401	Nov 30/80	25-21-14		401	Aug 30/80
25-12-00		402	Nov 30/80	25-21-14		402	Nov 30/79
25-12-00		403	Nov 30/80	25-21-14		801	May 30/79
25-12-00		404	Nov 30/80	25-21-14		802	May 30/79
25-12-00		405	Nov 30/80	25-21-14		803	May 30/79
25-12-00		406	Aug 30/76	25-21-14		804	May 30/79
25-12-00		407	Nov 30/80	25-21-14		805	May 30/79
25-12-00		408	Nov 30/80	25-21-20		401	Mar 31/95
25-12-00		409	Nov 30/80	25-21-20		402	Mar 31/95
25-12-11		801	Nov 30/85	25-21-20		403	Mar 31/95
25-12-11		802	Nov 30/78	25-21-21		401	Mar 31/95
25-12-11		803	Nov 30/85	25-21-21		402	Mar 31/95
25-12-11		804	Nov 30/85	25-21-21		403	Mar 31/95
				25-21-21		404	Mar 31/95
25-13-00		1	Aug 30/80	25-21-22		401	Nov 30/85
25-13-00		2	May 30/80	25-21-22		402	Nov 30/85
25-13-00		3	Aug 30/80	25-21-22		403	Nov 30/85
25-13-00		4	May 30/80	25-21-22		404	Nov 30/85
25-13-00		5	Aug 30/80	25-21-22		405	Nov 30/85
25-13-11		401	May 30/78	25-21-22		406	Nov 30/85
25-13-11		402	Nov 30/80	25-21-22		501	Mar 29/96

CH/SE/SU	C	PAGE	DATE
25-21-22		502	Mar 29/96
25-21-22		503	Mar 29/96
25-21-22		701	Nov 30/85
25-21-22		702	May 30/81
25-21-23		401	Mar 31/95
25-21-23		402	Mar 31/95
25-21-23		403	Mar 31/95
25-21-23		404	Mar 31/95
25-21-24		401	Mar 31/95
25-21-24		402	Mar 31/95
25-21-24		403	Mar 31/95
25-21-25		401	Sep 29/89
25-21-25		402	Nov 30/85
25-21-25		403	Sep 29/89
25-21-25		404	Nov 30/85
25-21-25		405	Nov 30/85
25-21-25		406	Mar 27/97
25-21-25		407	Mar 27/97
25-21-26		401	May 30/79
25-21-26		402	Feb 28/78
25-21-26		403	Feb 28/78
25-21-26		404	Feb 28/78
25-21-26		405	Feb 28/78
25-21-26		406	Feb 28/78
25-21-26		407	Feb 28/78
25-21-26		408	Feb 28/78
25-21-26		409	May 30/79
25-21-27		401	Nov 30/79
25-21-27		402	Nov 30/79
25-22-00		1	May 30/78
25-22-00		2	May 30/78
25-22-00		3	May 30/78
25-22-00		4	May 30/78
25-22-00		5	Aug 30/76
25-22-00		6	Aug 30/76
25-22-11		401	May 30/78
25-22-11		402	May 30/78
25-22-11		403	Nov 30/78
25-22-11		404	May 30/78
25-22-11		405	Aug 30/80
25-22-11		406	May 30/78
25-22-11		407	Aug 30/77
25-22-11		408	Nov 30/81
25-22-11		409	Nov 30/81
25-22-11		410	May 30/78
25-22-11		411	May 30/78
25-22-11		801	Sep 30/92
25-22-11		801 A	Sep 30/92
25-22-11		801 B	Sep 30/92
25-22-11		802	Aug 30/80
25-22-11		803	Aug 30/76
25-22-11		804	Nov 30/81
25-22-11		805	Aug 30/76
25-22-11		806	Aug 30/76
25-22-11		807	Aug 30/80
25-22-11		808	Sep 30/92
25-22-11		809	Sep 30/92
25-22-12		401	Aug 30/78
25-22-12		402	Aug 30/77
25-22-12		403	Feb 28/79
25-22-12		404	Feb 28/79
25-22-12		405	Feb 28/79
25-22-12		406	Mar 27/97
25-22-12		407	Aug 27/97
25-22-12		801	Mar 29/96
25-22-21		401	May 30/78
25-22-21		402	May 30/76
25-22-22	01	401	Feb 28/79
25-22-22	01	402	Feb 28/77
25-22-22	01	403	Feb 28/79
25-22-22	01	404	Feb 28/79
25-22-22	01	405	Feb 28/79
25-22-22	02	401	Feb 28/79
25-22-22	02	402	Feb 28/77
25-22-22	02	403	Feb 28/77
25-22-22	02	404	Feb 28/79
25-22-22	02	405	Feb 28/79
25-22-22	02	406	Feb 28/79
25-22-22	02	407	Feb 28/79
25-22-22	02	408	Feb 28/79
25-22-22	02	409	Feb 28/79
25-22-22	02	410	Feb 28/79
25-22-23		401	May 30/79
25-22-23		402	May 30/79
25-22-23		403	May 30/79
25-22-23		404	May 30/79
25-22-23		405	May 30/79
25-22-23		406	Aug 30/79
25-22-23		407	Nov 30/78
25-22-23		408	May 30/79
25-22-23		409	May 30/79
25-22-23		410	May 30/79
25-22-23		411	May 30/79
25-22-23		412	May 30/79
25-22-23		413	May 30/79
25-23-00		1	Nov 30/85
25-23-00		2	Nov 30/85
25-23-00		3	Nov 30/85

CH/SE/SU	C	PAGE	DATE
25-23-00		601	Nov 30/78
25-23-00		602	Nov 30/78
25-23-00		603	Nov 30/78
25-23-11		401	Aug 30/80
25-23-11		402	Aug 30/80
25-23-11		403	Aug 30/80
25-23-11		404	Aug 30/80
25-23-13		401	Nov 30/85
25-23-13		402	Feb 29/80
25-23-13		403	May 30/80
25-23-14		401	Mar 31/95
25-23-14		402	Mar 31/95
25-23-14		403	Mar 31/95
25-23-14		404	Mar 31/95
25-23-14		405	Mar 31/95
25-23-14		406	Mar 31/95
25-23-14		407	Mar 31/95
25-23-14		408	Mar 31/95
25-23-15	01	401	Aug 30/80
25-23-15	01	402	Aug 30/80
25-23-15	01	403	Aug 30/80
25-23-15	01	404	Aug 30/80
25-23-15	01	405	Aug 30/80
25-23-15	01	406	Aug 30/80
25-23-15	01	407	Aug 30/80
25-23-15	02	401	Aug 30/80
25-23-15	02	402	Aug 30/80
25-23-15	02	403	Aug 30/80
25-23-15	02	404	Aug 30/80
25-23-15	02	405	Aug 30/80
25-23-15	02	406	Aug 30/80
25-23-15	02	407	Aug 30/80
25-23-16	01	401	Nov 30/85
25-23-16	01	402	Aug 30/80
25-23-16	01	403	Aug 30/80
25-23-16	01	404	Aug 30/80
25-23-16	01	405	Aug 30/80
25-23-16	02	401	Nov 30/85
25-23-16	02	402	Aug 30/80
25-23-16	02	403	Aug 30/80
25-23-16	02	404	Aug 30/80
25-23-16	02	405	Aug 30/80
25-23-22		401	Nov 30/77
25-23-22		402	Nov 30/77
25-23-22		403	Nov 30/77
25-23-22		404	Nov 30/77
25-23-22		405	Nov 30/77
25-23-22		406	Nov 30/77
25-23-22		407	Nov 30/77
25-23-22		408	Nov 30/77
25-23-22		409	Nov 30/77
25-23-24		1	Sep 30/88
25-23-24		101	Nov 30/85
25-23-24		201	Sep 30/88
25-23-24		202	Sep 30/88
25-23-24		401	Sep 30/88
25-23-24		402	Sep 30/88
25-23-24		403	Sep 30/88
25-23-24		404	Sep 30/88
25-23-24		405	Sep 30/88
25-23-24		601	Sep 30/88
25-23-24		701	Sep 30/88
25-23-24		801	Sep 30/88
25-24-11		1	Sep 30/93
25-24-11		2	Sep 30/93
25-24-11		3	Sep 30/93
25-24-11		4	Nov 30/85
25-24-11		5	Nov 30/85
25-24-11		6	Sep 30/93
25-24-11		7	Sep 30/93
25-24-11		8	Sep 30/93
25-24-11		9	Sep 30/93
25-24-11		101	Sep 30/93
25-24-11		102	Sep 30/86
25-24-11		103	Sep 30/86
25-24-11		104	Sep 30/93
25-24-11		105	Sep 30/93
25-24-11		401	Sep 30/93
25-24-11		402	Aug 30/80
25-24-11		403	Sep 30/93
25-24-11		404	Sep 30/93
25-24-11		405	Sep 30/93
25-24-11		501	Sep 30/93
25-24-11		502	Sep 30/93
25-24-11		601	Nov 30/85
25-24-11		602	Nov 30/85
25-24-11		701	Nov 30/85
25-24-31		1	Aug 30/80
25-24-31		2	Aug 30/80
25-24-31		3	Aug 30/80
25-24-31		401	Aug 30/80
25-24-31		402	May 30/77
25-24-31		403	Aug 30/80
25-24-31		404	Aug 30/80
25-24-31		405	Aug 30/80
25-24-31		406	May 30/77
25-24-31		407	Aug 30/80
25-24-31		408	Aug 30/80

CH/SE/SU	C	PAGE	DATE	CH/SE/SU	C	PAGE	DATE
25-24-31		409	May 30/77	25-30-00		708	Mar 29/96
25-24-31		410	Aug 30/80	25-30-00		709	Mar 29/96
25-24-31		411	Aug 30/80	25-30-00		710	Mar 29/96
25-24-31		412	Aug 30/80	25-30-00		711	Mar 29/96
25-24-31		413	Aug 30/80	25-30-00		712	Mar 29/96
25-24-31		414	Aug 30/80	25-30-00		713	Mar 29/96
25-24-31		415	Aug 30/80	25-30-00		714	Mar 29/96
25-24-31		416	May 30/80	25-30-00		715	Mar 29/96
25-24-31		417	Aug 30/80	25-30-00		716	Mar 29/96
25-24-31		418	Aug 30/80	25-30-00		717	Mar 29/96
25-24-31		419	Aug 30/80	25-30-00		718	Mar 29/96
25-24-31		601	Feb 28/81	25-30-00		719	Mar 29/96
				25-30-00		720	Mar 29/96
25-25-00		501	Mar 29/96	25-30-00		721	Mar 29/96
25-25-00		502	Mar 29/96				
25-25-00		503	Mar 29/96	25-31-00		1	Mar 29/96
25-25-00		504	Mar 29/96	25-31-00		2	Mar 29/96
25-25-00		801	Mar 29/96	25-31-00		3	Mar 29/96
				25-31-00		4	Mar 29/96
25-30-00		1	Nov 30/80	25-31-00		5	Mar 29/96
25-30-00		2	Nov 30/80	25-31-00	01	401	Nov 30/79
25-30-00		3	Nov 30/80	25-31-00	01	402	Nov 30/79
25-30-00		4	Nov 30/80	25-31-00	01	403	Nov 30/79
25-30-00		5	Nov 30/80	25-31-00	01	404	Nov 30/79
25-30-00		401	Aug 30/78	25-31-00	01	405	Nov 30/79
25-30-00		402	Aug 30/78	25-31-00	01	406	Nov 30/79
25-30-00		403	Aug 30/78	25-31-00	02	401	Aug 30/80
25-30-00		404	Aug 30/80	25-31-00	02	402	Aug 30/80
25-30-00		405	Nov 30/79	25-31-00	02	403	Aug 30/80
25-30-00		406	Aug 30/80	25-31-00	02	404	Aug 30/80
25-30-00		407	Aug 30/80	25-31-00	02	405	Aug 30/80
25-30-00		501	Mar 29/96	25-31-00	02	406	Aug 30/80
25-30-00		502	Mar 29/96	25-31-00	02	407	Aug 30/80
25-30-00		503	Mar 29/96	25-31-00		501	Mar 29/96
25-30-00		504	Mar 29/96	25-31-00		502	Mar 29/96
25-30-00		505	Mar 29/96	25-31-00		503	Mar 29/96
25-30-00		506	Mar 29/96	25-31-00		504	Mar 29/96
25-30-00		601	May 30/78	25-31-12		401	Mar 29/96
25-30-00		602	Nov 30/79	25-31-12		402	Mar 29/96
25-30-00		603	Nov 30/79	25-31-12		403	Mar 29/96
25-30-00		604	Aug 30/80				
25-30-00		605	Aug 30/80	25-32-00		1	Mar 29/96
25-30-00		606	Aug 30/80	25-32-00		2	Mar 29/96
25-30-00		701	Mar 29/96	25-32-00		3	Mar 29/96
25-30-00		702	Mar 29/96	25-32-00		4	Mar 29/96
25-30-00		703	Mar 29/96	25-32-00		5	Mar 29/96
25-30-00		704	Mar 29/96	25-32-00		401	Mar 29/96
25-30-00		705	Mar 29/96	25-32-00		402	Mar 29/96
25-30-00		706	Mar 29/96	25-32-00		403	Mar 29/96
25-30-00		707	Mar 29/96	25-32-00		404	Mar 29/96

CH/SE/SU	C	PAGE	DATE	CH/SE/SU	C	PAGE	DATE
25-32-00		405	Mar 29/96	25-37-00		405	Mar 29/96
25-32-00		406	Mar 29/96	25-37-00		406	Mar 29/96
25-32-00		501	Mar 29/96	25-37-00		407	Mar 29/96
25-32-00		502	Mar 29/96	25-37-00		408	Mar 29/96
25-32-00		503	Mar 29/96	25-37-00		409	Mar 29/96
25-32-00		504	Mar 29/96	25-37-00		501	Mar 29/96
25-32-00		505	Mar 29/96	25-37-00		502	Mar 29/96
				25-37-00		503	Mar 29/96
25-33-00	01	1	May 30/80	25-37-00		504	Mar 29/96
25-33-00	01	2	Feb 29/80	25-37-00		505	Mar 29/96
25-33-00	01	401	Aug 30/80	25-37-00		506	Mar 29/96
25-33-00	01	402	Feb 29/80	25-37-00		507	Mar 29/96
25-33-00	01	403	Aug 30/80	25-37-00		508	Mar 29/96
25-33-00	01	404	Aug 30/80	25-37-00		801	Sep 30/90
				25-37-13		401	Mar 29/96
25-34-00		1	Mar 29/96	25-37-13		402	Mar 29/96
25-34-00		2	Mar 29/96	25-37-13		403	Sep 30/90
25-34-00		401	Mar 29/96				
25-34-00		402	Mar 29/96	25-41-00		1	Sep 30/90
25-34-00		403	Mar 29/96	25-41-00		2	Sep 30/90
25-34-00		501	Mar 29/96	25-41-00		3	Sep 30/90
				25-41-00		4	Sep 30/90
25-35-00		1	Aug 30/79	25-41-00		5	Sep 30/90
25-35-00		2	Nov 30/78	25-41-00		6	Sep 30/90
25-35-00		401	Aug 30/79	25-41-00		401	May 30/79
25-35-00		402	Nov 30/78	25-41-00		402	May 30/79
25-35-00		403	Aug 30/79	25-41-00		501	Sep 30/90
25-35-00		404	Aug 30/79	25-41-00		601	Sep 30/90
25-35-00		405	Aug 30/79	25-41-00		602	Sep 30/90
25-35-00		501	May 30/79	25-41-00		603	Sep 30/90
				25-41-00		604	Sep 30/90
25-36-00		1	Feb 28/77	25-41-12		401	Sep 30/90
25-36-00		2	Nov 30/78	25-41-12		402	Sep 30/90
25-36-00		401	Feb 28/77	25-41-13		401	Sep 30/90
25-36-00		402	Nov 30/78	25-41-13		402	Sep 30/90
25-36-00		403	Nov 30/78	25-41-13		403	Sep 30/90
25-36-00		404	Nov 30/78	25-41-13		404	Sep 30/90
25-36-00		405	Nov 30/78	25-41-13		405	Sep 30/90
25-36-00		501	May 30/79	25-41-13		406	Sep 30/90
				25-41-13		407	Sep 30/90
25-37-00		1	Mar 29/96	25-41-13		408	Sep 30/90
25-37-00		2	Mar 29/96	25-41-13		409	Sep 30/90
25-37-00		3	Mar 29/96	25-41-13		410	Sep 30/90
25-37-00		4	Mar 29/96	25-41-13		411	Sep 30/90
25-37-00		5	Mar 29/96	25-41-13		412	Sep 30/90
25-37-00		6	Mar 29/96	25-41-13		413	Sep 30/90
25-37-00		401	Mar 29/96	25-41-13		414	Sep 30/90
25-37-00		402	Mar 29/96	25-41-13		415	Sep 30/90
25-37-00		403	Mar 29/96	25-41-13		416	Sep 30/90
25-37-00		404	Mar 29/96	25-41-13		417	Sep 30/90

CH/SE/SU	C	PAGE	DATE	CH/SE/SU	C	PAGE	DATE
25-41-13		418	Sep 30/90	25-41-31		413	Sep 30/90
25-41-13		419	Sep 30/90	25-41-31		414	Sep 30/90
25-41-13		420	Sep 30/90	25-41-31		415	Sep 30/90
25-41-13		421	Sep 30/90	25-41-31		416	Sep 30/90
25-41-13		422	Sep 30/90	25-41-31		417	Sep 30/90
25-41-13		423	Sep 30/90	25-41-31		418	Sep 30/90
25-41-13		424	Sep 30/90	25-41-31		419	Sep 30/90
25-41-13		425	Sep 30/90	25-41-31		420	Sep 30/90
25-41-13		426	Sep 30/90	25-41-31		421	Sep 30/90
25-41-13		427	Sep 30/90	25-41-31		422	Sep 30/90
25-41-13		428	Sep 30/90	25-41-31		423	Sep 30/90
25-41-13		429	Sep 30/90	25-41-31		424	Sep 30/90
25-41-13		430	Sep 30/90	25-41-31		425	Sep 30/90
25-41-13		431	Sep 30/90	25-41-31		426	Sep 30/90
25-41-13		432	Sep 30/90	25-41-31		427	Sep 30/90
25-41-13		433	Sep 30/90	25-41-31		428	Sep 30/90
25-41-13		434	Sep 30/90	25-41-31		429	Sep 30/90
25-41-13		435	Sep 30/90	25-41-31		430	Sep 30/90
25-41-13		436	Sep 30/90	25-41-31		431	Sep 30/90
25-41-13		437	Sep 30/90	25-41-31		432	Sep 30/90
25-41-13		438	Sep 30/90	25-41-31		433	Sep 30/90
25-41-13		439	Sep 30/90	25-41-31		434	Sep 30/90
25-41-13		440	Sep 30/90	25-41-31		435	Sep 30/90
25-41-13		441	Sep 30/90	25-41-31		436	Sep 30/90
25-41-13		442	Sep 30/90	25-41-32		401	Sep 30/90
25-41-14		401	May 30/78	25-41-32		402	Sep 30/90
25-41-14		402	Aug 30/76	25-41-32		403	Sep 30/90
25-41-14		403	Aug 30/76	25-41-32		404	Sep 30/90
25-41-15		401	May 30/79	25-41-32		405	Sep 30/90
25-41-15		402	Aug 30/76	25-41-32		406	Sep 30/90
25-41-15		403	May 30/79	25-41-32		407	Sep 30/90
25-41-15		404	Aug 30/76	25-41-32		408	Sep 30/90
25-41-16		401	May 30/78	25-41-32		409	Sep 30/90
25-41-16		402	Aug 30/76	25-41-32		410	Sep 30/90
25-41-16		403	Aug 30/80	25-41-32		411	Sep 30/90
25-41-16		404	Aug 30/80	25-41-32		412	Sep 30/90
25-41-17		401	Feb 28/77	25-41-32		413	Sep 30/90
25-41-17		402	Feb 28/77	25-41-32		414	Sep 30/90
25-41-31		401	Sep 30/90	25-41-32		415	Sep 30/90
25-41-31		402	Sep 30/90	25-41-32		416	Sep 30/90
25-41-31		403	Sep 30/90	25-41-32		417	Sep 30/90
25-41-31		404	Sep 30/90	25-41-32		418	Sep 30/90
25-41-31		405	Sep 30/90	25-41-32		419	Sep 30/90
25-41-31		406	Sep 30/90	25-41-32		420	Sep 30/90
25-41-31		407	Sep 30/90	25-41-32		421	Sep 30/90
25-41-31		408	Sep 30/90	25-41-32		422	Sep 30/90
25-41-31		409	Sep 30/90	25-41-32		423	Sep 30/90
25-41-31		410	Sep 30/90	25-41-32		424	Sep 30/90
25-41-31		411	Sep 30/90	25-41-32		425	Sep 30/90
25-41-31		412	Sep 30/90	25-41-32		426	Sep 30/90

CH/SE/SU	C	PAGE	DATE	CH/SE/SU	C	PAGE	DATE
25-41-32		427	Sep 30/90	25-41-33	02	401	Nov 30/85
25-41-32		428	Sep 30/90	25-41-33	02	402	Aug 30/80
25-41-32		429	Sep 30/90	25-41-33	02	403	Aug 30/80
25-41-32		430	Sep 30/90	25-41-33	02	404	Aug 30/80
25-41-32		431	Sep 30/90	25-41-33	02	405	Aug 30/80
25-41-32		432	Sep 30/90	25-41-33	02	406	Aug 30/80
25-41-32		433	Sep 30/90	25-41-33	02	407	Aug 30/80
25-41-32		434	Sep 30/90	25-41-33	02	408	Aug 30/80
25-41-32		435	Sep 30/90	25-41-33	02	409	Aug 30/80
25-41-32		436	Sep 30/90	25-41-33	02	410	Aug 30/80
25-41-33	01	401	Nov 30/85	25-41-33	02	411	Aug 30/80
25-41-33	01	402	May 30/80	25-41-33	02	412	Aug 30/80
25-41-33	01	403	Nov 30/79	25-41-33	02	413	Aug 30/80
25-41-33	01	404	Nov 30/79	25-41-33	02	414	Aug 30/80
25-41-33	01	405	Nov 30/79	25-41-33	02	415	Aug 30/80
25-41-33	01	406	Nov 30/79	25-41-33	02	416	Aug 30/80
25-41-33	01	407	Nov 30/79	25-41-33	02	417	Aug 30/80
25-41-33	01	408	Nov 30/79	25-41-33	02	418	Aug 30/80
25-41-33	01	409	Nov 30/79	25-41-33	02	419	Aug 30/80
25-41-33	01	410	Nov 30/79	25-41-33	02	420	Aug 30/80
25-41-33	01	411	Nov 30/79	25-41-33	02	421	Aug 30/80
25-41-33	01	412	Nov 30/79	25-41-33	02	422	Aug 30/80
25-41-33	01	413	Nov 30/79	25-41-33	02	423	Aug 30/80
25-41-33	01	414	Nov 30/79	25-41-33	02	424	Aug 30/80
25-41-33	01	415	Nov 30/79				
25-41-33	01	416	Nov 30/79	25-52-00		1	May 30/81
25-41-33	01	417	Nov 30/79	25-52-00		2	Feb 28/81
25-41-33	01	418	Nov 30/79	25-52-00		3	May 30/81
25-41-33	01	419	Nov 30/79	25-52-00		4	May 30/81
25-41-33	01	420	Nov 30/79	25-52-00		5	Feb 28/81
25-41-33	01	421	Nov 30/79	25-52-00		6	May 30/81
25-41-33	01	422	Nov 30/79	25-52-00		601	Aug 30/80
25-41-33	01	423	Nov 30/79	25-52-00		602	Aug 30/80
25-41-33	01	424	Nov 30/79	25-52-00		801	Mar 31/95
25-41-33	01	425	Nov 30/79	25-52-11		401	Aug 30/80
25-41-33	01	426	May 30/80	25-52-11		402	May 30/76
25-41-33	01	427	Nov 30/79	25-52-11		403	Aug 30/80
25-41-33	01	428	Nov 30/79	25-52-11		404	Nov 30/79
25-41-33	01	429	Nov 30/79	25-52-11		405	Nov 30/79
25-41-33	01	430	Nov 30/79	25-52-11		801	May 30/78
25-41-33	01	431	Nov 30/79	25-52-11		802	Nov 30/76
25-41-33	01	432	Nov 30/79	25-52-11		803	Nov 30/76
25-41-33	01	433	Nov 30/79	25-52-11		804	Nov 30/76
25-41-33	01	434	Nov 30/79	25-52-11		805	Nov 30/76
25-41-33	01	435	Nov 30/79	25-52-11		806	Nov 30/76
25-41-33	01	436	Nov 30/79	25-52-11		807	May 30/78
25-41-33	01	437	Nov 30/79	25-52-11		808	Nov 30/76
25-41-33	01	438	Nov 30/79	25-52-13		401	Mar 29/96
25-41-33	01	439	Nov 30/79	25-52-13		402	Mar 29/96
25-41-33	01	440	Nov 30/79	25-52-13		403	Mar 29/96

CH/SE/SU	C	PAGE	DATE	CH/SE/SU	C	PAGE	DATE
25-52-13		404	Mar 29/96	25-53-15		404	Nov 30/77
				25-53-15		405	Aug 30/77
25-53-00		1	Aug 30/80	25-53-15		406	Aug 30/77
25-53-00		2	Aug 30/80	25-53-15		407	Nov 30/77
25-53-00		3	Aug 30/80	25-53-15		408	Nov 30/77
25-53-00		4	Feb 28/81	25-53-15		409	Nov 30/77
25-53-00		5	Aug 30/80	25-53-16		401	Feb 28/77
25-53-00		6	Nov 30/80	25-53-16		402	Aug 30/77
25-53-00		7	Feb 28/81	25-53-16		403	Aug 30/77
25-53-00		601	Feb 29/80	25-53-16		404	Aug 30/77
25-53-00		602	Feb 29/80	25-53-17		401	Mar 29/96
25-53-11	01	401	Aug 30/80	25-53-17		402	Mar 29/96
25-53-11	01	402	Aug 30/80	25-53-17		403	Mar 29/96
25-53-11	01	403	Aug 30/80	25-53-17		404	Mar 29/96
25-53-11	01	404	Aug 30/80	25-53-17		405	Mar 29/96
25-53-11	01	405	Aug 30/80	25-53-19		401	Mar 29/96
25-53-11	02	401	Nov 30/79	25-53-19		402	Mar 29/96
25-53-11	02	402	Nov 30/79	25-53-19		403	Mar 29/96
25-53-11	02	403	Nov 30/79				
25-53-11	02	404	Nov 30/79	25-60-00		1	Sep 30/87
25-53-11	02	405	Nov 30/79	25-60-00		2	Sep 30/93
25-53-11		801	Mar 27/97	25-60-00		3	Sep 30/91
25-53-11		802	May 30/79	25-60-00		4	Sep 30/91
25-53-11		803	May 30/79				
25-53-11		804	May 30/79	25-61-00		1	Nov 30/80
25-53-11		805	May 30/79	25-61-00		2	Nov 30/89
25-53-11		806	May 30/79	25-61-00		3	Feb 28/77
25-53-11		807	Mar 27/97	25-61-00		4	Nov 30/80
25-53-11		808	May 30/79	25-61-00		5	Nov 30/80
25-53-11		809	May 30/79	25-61-00		6	Nov 30/80
25-53-11		810	May 30/79	25-61-11		401	Feb 29/76
25-53-11		811	May 30/79	25-61-11		402	Feb 29/76
25-53-11		812	May 30/79	25-61-11		403	Nov 30/79
25-53-11		813	May 30/79	25-61-11		404	Feb 28/77
25-53-12		401	Nov 30/79	25-61-11		405	Feb 28/77
25-53-12		402	Feb 28/77	25-61-11		601	Nov 30/78
25-53-12		403	Mar 27/97	25-61-11		602	Feb 26/76
25-53-12		404	Mar 27/97	25-61-12		1	Sep 30/88
25-53-13		401	Aug 30/80	25-61-13		1	Sep 29/89
25-53-13		402	Aug 30/80				
25-53-13		403	Aug 30/80	25-62-00		1	Feb 28/79
25-53-13		404	Aug 30/80	25-62-00		2	Nov 30/78
25-53-13		405	Aug 30/80	25-62-00		3	Sep 30/87
25-53-14		401	Aug 30/80	25-62-00		4	Sep 30/87
25-53-14		402	Nov 30/79	25-62-00		5	Nov 30/80
25-53-14		403	Aug 30/80	25-62-00		6	Nov 30/80
25-53-14		404	Nov 30/77	25-62-11		601	Nov 30/83
25-53-15		401	Aug 30/77	25-62-12		401	Feb 29/80
25-53-15		402	Nov 30/77	25-62-12		402	Nov 30/79
25-53-15		403	Nov 30/77	25-62-12		403	Feb 29/80

CH/SE/SU	C	PAGE	DATE	CH/SE/SU	C	PAGE	DATE
25-62-13		401	Nov 30/85	25-64-12		402	May 30/79
25-62-13		402	Nov 30/85	25-64-12		403	Feb 29/79
25-62-13		403	May 30/77	25-64-12		404	Nov 30/79
25-62-14		301	Mar 29/96	25-64-12		405	Feb 29/76
25-62-14		302	Mar 29/96	25-64-13		401	Feb 28/81
25-62-14		501	Mar 29/96	25-64-13		402	May 30/81
25-62-14		502	Mar 29/96	25-64-13		403	May 30/81
25-62-16		401	Nov 30/80	25-64-13		404	May 30/81
25-62-16		402	Nov 30/80	25-64-13		405	May 30/81
25-62-17		501	Feb 28/81				
25-62-17		502	Feb 28/81	25-65-00		1	Mar 31/98
25-62-17		503	Nov 30/80	25-65-00		2	May 30/76
				25-65-00		2 A	Mar 31/98
25-64-00		1	Jun 30/75	25-65-00		2 B	Mar 31/98
25-64-00		2	Mar 31/98	25-65-00		3	Aug 30/80
25-64-00		2 A	Mar 31/98	25-65-00		4	May 30/76
25-64-00		2 B	Mar 31/98	25-65-00		5	Aug 30/79
25-64-00		3	May 30/76	25-65-00		6	Aug 30/80
25-64-00		4	Mar 31/98	25-65-00		7	May 30/76
25-64-00		5	May 30/78	25-65-00		8	Nov 30/80
25-64-00		6	May 30/78	25-65-00		9	May 30/81
25-64-00		7	May 30/78	25-65-00		10	Aug 30/80
25-64-00		8	May 30/78	25-65-00		11	Aug 30/80
25-64-00		9	May 30/78	25-65-00		12	May 30/81
25-64-00		10	May 30/78	25-65-00		13	Nov 30/81
25-64-00		11	May 30/78	25-65-00		14	Aug 30/80
25-64-00		501	Nov 30/84	25-65-00		15	Nov 30/80
25-64-00		502	Mar 31/99	25-65-00		16	Aug 30/80
25-64-00		503	Mar 31/99	25-65-00		17	Aug 30/80
25-64-00		504	Nov 30/80	25-65-00		18	Nov 30/80
25-64-00		505	Mar 29/96	25-65-00		101	Sep 30/88
25-64-00		506	May 30/78	25-65-00		102	Feb 28/81
25-64-00		507	Mar 29/96	25-65-00		103	Feb 28/81
25-64-00		601	May 30/81	25-65-00		104	Feb 28/81
25-64-00		602	May 30/81	25-65-00		105	Feb 28/81
25-64-00		603	Mar 30/01	25-65-00		106	Feb 28/81
25-64-00		604	Mar 30/01	25-65-00		107	Feb 28/81
25-64-00		605	Mar 31/99	25-65-00		501	Nov 30/84
25-64-00		606	Nov 30/81	25-65-00		502	Nov 30/84
25-64-11		401	Aug 30/79	25-65-00		503	Nov 30/84
25-64-11		402	Aug 30/76	25-65-00		504	Sep 30/88
25-64-11		403	Mar 31/99	25-65-00		505	Nov 30/80
25-64-11		404	Mar 31/99	25-65-00		506	Nov 30/80
25-64-11		404 A	May 30/83	25-65-00		507	Nov 30/80
25-64-11		405	Mar 31/99	25-65-00		508	May 30/82
25-64-11		406	Mar 31/99	25-65-00		509	May 30/81
25-64-11		407	Mar 30/01	25-65-00		510	May 30/81
25-64-11		408	Feb 29/76	25-65-00		511	Mar 29/96
25-64-11		409	Mar 31/99	25-65-00		512	Nov 30/80
25-64-12		401	May 30/79	25-65-00		513	Mar 29/96

CH/SE/SU	C	PAGE	DATE
25-65-00		601	Nov 30/80
25-65-00		602	Nov 30/81
25-65-00		603	Nov 30/81
25-65-00		604	Nov 30/81
25-65-00		605	Nov 30/81
25-65-11		401	Aug 30/76
25-65-11		402	May 30/83
25-65-11		403	Aug 30/77
25-65-11		404	May 30/78
25-65-11		404 A	May 30/83
25-65-11		405	May 30/83
25-65-11		406	Aug 30/79
25-65-11		407	Aug 30/79
25-65-11		408	Aug 30/79
25-65-11		409	Aug 30/79
25-65-12		401	Nov 30/79
25-65-12		402	Nov 30/75
25-65-12		403	Mar 27/97
25-65-12		404	Nov 30/79
25-65-12		405	Nov 30/79
25-65-13		401	Feb 28/78
25-65-13		402	Aug 30/77
25-65-13		403	Feb 28/78
25-65-14		301	May 30/81
25-65-14		302	May 30/81
25-65-14		303	May 30/81
25-65-14		304	May 30/78
25-65-14		305	May 30/81
25-65-14		306	May 30/81
25-65-14		307	May 30/81
25-65-14		401	Mar 31/99
25-65-14		402	May 30/81
25-65-14		403	May 30/81
25-65-14		404	Mar 31/99
25-65-14		405	Mar 31/99
25-65-14		406	Mar 31/99
25-65-14		407	May 30/81
25-65-16		401	Nov 30/77
25-65-16		402	Aug 30/77
25-65-16		403	Nov 30/77
25-65-17		401	Nov 30/77
25-65-17		402	Aug 30/79
25-65-17		403	Nov 30/77
25-65-17		404	Nov 30/77
25-65-17		405	Nov 30/77
25-66-00		1	Nov 30/80
25-66-00		2	May 30/81
25-66-00		3	Jun 30/75
25-66-00		4	Mar 27/97
25-66-00		5	Nov 30/80
25-66-00		6	Nov 30/80
25-66-00		7	Nov 30/81
25-66-00		8	Jun 30/75
25-66-00		9	Nov 30/81
25-66-00		501	Aug 30/76
25-66-00		502	Jun 30/75
25-66-00		503	Aug 30/76
25-66-00		504	May 30/81
25-66-00		505	May 30/81
25-66-00		506	Nov 30/84
25-66-00		507	May 30/81
25-66-00		508	Mar 29/96
25-66-00		509	Mar 29/96
25-66-00		601	Nov 30/78
25-66-00		602	Nov 30/78
25-66-00		603	Nov 30/78
25-66-11	R	401	May 31/03
25-66-11	R	402	May 31/03
25-66-11	R	403	May 31/03
25-66-11	R	404	May 31/03
25-66-11	R	405	May 31/03
25-67-00		1	Feb 28/79
25-67-00		2	Feb 28/79
25-67-00		3	Sep 30/88
25-67-00		4	Sep 30/88
25-67-00		5	Feb 28/79
25-67-00		101	Feb 28/79
25-67-00		102	Feb 28/79
25-67-00		103	Feb 28/79
25-67-00		104	Feb 28/79
25-67-00		105	Feb 28/79
25-67-00		106	Feb 28/79
25-67-00		107	Feb 28/79
25-67-00		108	Nov 30/79
25-67-00		109	Nov 30/79
25-67-00		401	Nov 30/78
25-67-00		402	Nov 30/78
25-67-00		403	Nov 30/78
25-67-00		404	Nov 30/78
25-67-00		501	Nov 30/78
25-67-00		502	Sep 30/88
25-67-00		503	Sep 30/88
25-67-00		504	Sep 30/88
25-67-11		401	Nov 30/78
25-67-12		401	Nov 30/78
25-67-12		402	Nov 30/78
25-71-00		1	Nov 30/80

CH/SE/SU	C	PAGE	DATE
25-71-00		2	Jun 30/75
25-71-00		3	Aug 30/75
25-71-00		4	Nov 30/84
25-71-00		5	Nov 30/84
25-71-00		6	Nov 30/84
25-71-00		7	Mar 31/95
25-71-00		8	Mar 31/95
25-71-00		8A	Mar 31/95
25-71-00		8B	Mar 31/95
25-71-00		9	Nov 30/84
25-71-00		10	Nov 30/84
25-71-00		11	Nov 30/84
25-71-00		12	Nov 30/84
25-71-00		13	Nov 30/84
25-71-00		14	Nov 30/84
25-71-00		15	Nov 30/84
25-71-00		16	Sep 30/90
25-71-00		17	Nov 30/84
25-71-00		18	Nov 30/84
25-71-00		19	Nov 30/84
25-71-00		20	Nov 30/84
25-71-00		21	Mar 31/95
25-71-00		22	Mar 31/95
25-71-00		23	May 30/79
25-71-00		24	May 30/79
25-71-00		25	Nov 30/82
25-71-00		26	May 30/79
25-71-00		27	May 30/79
25-71-00		401	Aug 30/80
25-71-00		402	Aug 30/80
25-71-00		403	Aug 30/80
25-71-00		404	Nov 30/75
25-71-00		405	Aug 30/81
25-71-00		406	Aug 30/79
25-71-00		407	Nov 30/75
25-71-00		408	Aug 30/79
25-71-00		409	Nov 30/75
25-71-00		410	Aug 30/79
25-71-00		411	Nov 30/75
25-71-00		412	Aug 30/79
25-71-00		413	Nov 30/75
25-71-00		414	Aug 30/79
25-71-00		415	Aug 30/80
25-71-00		416	May 30/79
25-71-00		417	Aug 30/79
25-71-00		418	Nov 30/82
25-71-00		419	Nov 30/82
25-71-00		420	Nov 30/82
25-72-00		1	Jun 30/75
25-72-00		2	Jun 30/75
25-73-00		1	Aug 30/80
25-73-00		2	Feb 28/79
25-73-00		3	Feb 28/79
25-73-00		4	Feb 28/79
25-73-11	01	401	Nov 30/80
25-73-11	01	402	Nov 30/80
25-73-11	01	403	Nov 30/80
25-73-11	01	404	Aug 30/80
25-73-11	01	405	Aug 30/80
25-73-11	01	406	Aug 30/80
25-73-11	01	407	Aug 30/80
25-73-11	01	408	Aug 30/80
25-73-11	01	409	Aug 30/80
25-73-11	01	410	Aug 30/80
25-73-11	01	411	Aug 30/80
25-73-11	02	401	Aug 30/80
25-73-11	02	402	May 30/79
25-73-11	02	403	Feb 28/79
25-73-11	02	404	Feb 28/79
25-73-11	02	405	Feb 28/79
25-73-11	02	406	Feb 28/79
25-73-11	02	407	May 30/79
25-73-11	02	408	May 30/79
25-73-11	02	409	May 30/79
25-73-11	02	410	May 30/79
25-73-11	02	411	May 30/79
25-73-11	02	412	May 30/79
25-73-11	02	413	May 30/79
25-73-11		801	Mar 29/96
25-73-11		802	Mar 29/96
25-73-11		803	Mar 29/96
25-73-11		804	Mar 29/96
25-73-11		805	Mar 29/96
25-75-00		1	Aug 30/75
25-75-00		2	Aug 30/75

SERVICE BULLETIN LIST

In the following service bulletin list, SB indicates an aircraft manufacturer's bulletin, AEB indicates an airline engineering bulletin and OL indicates an engine manufacturer's bulletin (complete identification OL.593-XX-XXX).

	SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
	SB 20-004		May 30/79	Embodied Airframe Systems. Standard practices airframe.- Intoduction of revised bonding strip to zone 123 racking shelves
R	SB 20-004	01	May 30/79	Embodied Airframe Systems. Standard practices airframe - Intoduction of revised bonding strip to zone 123 racking shelves
R	SB 25-001			Not applicable Equipment/Furnishings. Addition of luggage bin hinge cover at Frame 41
R	SB 25-001			Not applicable Equipment/Furnishings. Addition of luggage bin hinge cover at Frame 41
R	SB 25-001			Not applicable Equipment/Furnishings. Addition of luggage bin hinge cover at Frame 41
	SB 25-002			Embodied Equipment/Furnishings. Slide and slide/raft packs - To introduce essential changes at the forward service door and intermediate passenger and service door locations
	SB 25-003			No effect Equipment/Furnishings. Slide, slide/raft and life raft pack inflation bottles - To introduce essential changes at the forward passenger door, rear service doors and life raft locations
	SB 25-003	01		No effect Equipment/Furnishings. Slide, slide/raft and life raft pack inflation bottles - To introduce essential changes at the forward passenger door, rear service doors and life raft locations
	SB 25-003	02		No effect Equipment/Furnishings. Slide, slide/raft and life raft pack inflation bottles - To introduce essential changes at the forward passenger door, rear service doors and life raft locations

	SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
	SB 25-004			Not applicable
R				Equipment/Furnishings. To improve esthetic
R				aspect of cabin ceiling capping strips
	SB 25-004	01		Not applicable
R				Equipment/Furnishings. To improve esthetic
R				aspect of cabin ceiling capping strips
	SB 25-004	02		Not applicable
R				Equipment/Furnishings. To improve esthetic
R				aspect of cabin ceiling capping strips
	SB 25-005			Not applicable
	SB 25-006		May 30/78	Embodied
				Equipment/Furnishings. Cabin sidewall window
				blind - Introduction of improvement to
				overcome operational defects
	SB 25-006	01		Embodied
				Equipment/Furnishings. Cabin sidewall window
				blind - Introduction of improvement to
				overcome operational defects
	SB 25-006	02		Embodied
				Equipment/Furnishings. Cabin sidewall window
				blind - Introduction of improvement to
				overcome operational defects
	SB 25-006	03		Embodied
				Equipment/Furnishings. Cabin sidewall window
				blind - Introduction of improvement to
				overcome operational defects
	SB 25-007			No effect
				Equipment Furnishings. Forward girt arm at
				intermediate service door - To alter the
				position of the shoot bolt lock
	SB 25-007	01		Applicable
				Equipment Furnishings. Forward girt arm at
				intermediate service door - To alter the
				position of the shoot bolt lock
	SB 25-008			Not applicable
	SB 25-009			Not applicable
R				Equipment/Furnishings. Passenger compartment
R				lining - Additional attachment of sidewall
R				panel support structureto structural frames
	SB 25-010			Not applicable
				Equipment/Furnishings. Toilets - To improve
				the retention of the ashtrays outside the
				toilets

SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
SB 25-010	01		Not applicable Equipment/Furnishings. Toilets - To improve the retention of the ashtrays outside the toilets
SB 25-011		Nov 30/76	Embodied Equipment/Furnishings. Flight compartment seats - To prevent disengagement of the rack and pinion of the 2nd Pilots seat in the traverse drive
SB 25-011	01		Applicable Equipment/Furnishings. Flight compartment seats - To prevent disengagement of the rack and pinion of the 2nd Pilots seat in the traverse drive
SB 25-012			Not applicable
SB 25-013			Not applicable
SB 25-014			Not applicable
SB 25-015			Not applicable
SB 25-016			No effect Equipment/Furnishings. Part (a) passenger service units (P.S.U.s) Part (b) speaker sign panels (S.S.P.s) and Part (c) Infill panels (I.P.s) - To modify the P.S.U. and S.S.P. mounting spring clip assemblies and the I.P. sliding yoke and to replace the P.S.U. and S.S.P. stop brackets
SB 25-017			No effect Equipment/Furnishings. Stewards seat - To change foam material on certain items
SB 25-017			Applicable Equipment/Furnishings. Stewards seat - To change foam material on certain items
SB 25-018			No effect Equipment/Furnishings. Crew seats - To improve the switching interlock mechanism of the 3rd Crew members seat
SB 25-019		Feb 28/77	Embodied Equipment/Furnishings. Engineers (3rd CM) inter seat travel limit mechanism - Introduction of improvements to avoid inadvertant power isolation
SB 25-019	01		Embodied Equipment/Furnishings. Engineers (3rd CM) inter seat travel limit mechanism - Introduction of improvements to avoid inadvertant power isolation

SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
SB 25-020		Nov 30/78	Embodied Equipment/Furnishings. Galley 5 and 6 - To change meals trolley guide rails
SB 25-021			No effect Equipment/Furnishings. Slide raft pack, forward passenger door - To revise the standard of the pack for use in wind speeds of 15 knots
SB 25-021	01		No effect Equipment/Furnishings. Slide raft pack, forward passenger door - To revise the standard of the pack for use in wind speeds of 15 knots
SB 25-021	02		Applicable Equipment/Furnishings. Slide raft pack, forward passenger door - To revise the standard of the pack for use in wind speeds of 15 knots
SB 25-021	03		Applicable Equipment/Furnishings. Slide raft pack, forward passenger door - To revise the standard of the pack for use in wind speeds of 15 knots
SB 25-022			Applicable Equipment/Furnishings. Emergency - To replace existing forward service door slide pack release latch adjustment bolt with bolt of enlarged head size
SB 25-023			Not applicable
SB 25-024			No effect Equipment/Furnishings. Slide pack, forward service door - To introduce a modified slide pack
SB 25-025		Nov 30/77	Embodied Equipment/Furnishings. Flight crew seats - To introduce modified roller assemblies to the Captain's, 1st Supernumerary's and 3rd CM's seats and to add packing under the secondary trolley rear I/B retaining claw
SB 25-025	01		Applicable Equipment/Furnishings. Flight crew seats - To introduce modified roller assemblies to the Captain's, 1st Supernumerary's and 3rd CM's seats and to add packing under the secondary trolley rear I/B retaining claw

SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
SB 25-026			Applicable Equipment/Furnishings. Passenger compartment - To reduce excessive noise in overhead stowage bin areas
SB 25-027		Feb 28/78	Embodied Equipment/Furnishings. Forward service door escape slide system - To modify the aft girt arm floor fitting wear and ramp plates
SB 25-027	01		Embodied Equipment/Furnishings. Forward service door escape slide system - To modify the aft girt arm floor fitting wear and ramp plates
SB 25-027	02		No effect Equipment/Furnishings. Forward service door escape slide system - To modify the aft girt arm floor fitting wear and ramp plates
SB 25-028			No effect Equipment/Furnishings. Slide pack, forward service door - To introduce a modified slide pack
SB 25-029			Not applicable
SB 25-030		Feb 28/78	Embodied Equipment/Furnishings. Emergency - To alter position of the shoot bolt slots in the girt arms at the forward and intermediate passenger and service doors
SB 25-030	01		Applicable Equipment/Furnishings. Emergency - To alter position of the shoot bolt slots in the girt arms at the forward and intermediate passenger and service doors
SB 25-030	02		Applicable Equipment/Furnishings. Emergency - To alter position of the shoot bolt slots in the girt arms at the forward and intermediate passenger and service doors
SB 25-031			Applicable Equipment/Furnishings. Lining - To introduce improved passenger service unit infill panels
SB 25-032			Embodied Equipment/Furnishings. Flight compartment - Deletion of eye datum locators

SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
SB 25-033			Applicable Equipment/Furnishings. Passenger compartment - To improve attachment of carpet in way of U/C release access panels in forward and rear cabins
SB 25-034			No effect Equipment/Furnishings. Flight compartment - To change specific anchor nuts to capped type in flight compartment roof
SB 25-035			Not applicable Equipment/Furnishings. Fuselage - Add a fifth attachment point to cabin bulkhead for search and rescue radio beacon stowage
SB 25-035	01		Not applicable Equipment/Furnishings. Fuselage - Add a fifth attachment point to cabin bulkhead for search and rescue radio beacon stowage
SB 25-036			No effect Equipment/Furnishings. Flight compartment - To close gap between side console panels and radar units
SB 25-036	01		No effect Equipment/Furnishings. Flight compartment - To close gap between side console panels and radar units
SB 25-037			Applicable Equipment/Furnishings. Electronic equipment racking - To fit reinforcing inserts to glass fibre sealing panels for attachment fasteners
SB 25-038			Applicable Equipment/Furnishings. Emergency equipment - To improve the ICY of slides and slide/rafts at the forward and intermediate passenger and service doors
SB 25-038	01		Applicable Equipment/Furnishings. Emergency equipment - To improve the ICY of slides and slide/rafts at the forward and intermediate passenger and service doors
SB 25-038	02		Applicable Equipment/Furnishings. Emergency equipment - To improve the ICY of slides and slide/rafts at the forward and intermediate passenger and service doors

SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
SB 25-039			No effect Equipment/Furnishings. Flight compartment - Minor corrections to furnishing and equipment
SB 25-039	01		No effect Equipment/Furnishings. Flight compartment - Minor corrections to furnishing and equipment
SB 25-040			Not applicable Equipment/Furnishings. Improve luggage bin hinge attachment at Frame 42
SB 25-041			No effect Equipment/Furnishings. Improve installation of oxygen fairing at Frame 71
SB 25-042		Feb 28/79	Embodied Equipment/Furnishings. Forward fuselage - To introduce a radiation shield in the flying control chassis bay
SB 25-043			Not applicable Equipment/Furnishings. Modify certain stowages to permit FAA operational certification
SB 25-043	01		Not applicable Equipment/Furnishings. Modify certain stowages to permit FAA operational certification
SB 25-044			No effect Equipment/Furnishings. Eliminate rear cabin service door seal displacement
SB 25-044	01		No effect Equipment/Furnishings. Eliminate rear cabin service door seal displacement
SB 25-045		Nov 30/78	Embodied Equipment/Furnishings. Introduction of trim strips with improved attachment replacing cover strips, on cabin sidewall panels
SB 25-045	01		Embodied Equipment/Furnishings. Introduction of trim strips with improved attachment replacing cover strips, on cabin sidewall panels
SB 25-046			Applicable Equipment/Furnishings. Slide packs, rear service doors LH and RH - To introduce modified slide packs

SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
SB 25-046	01		Applicable Equipment/Furnishings. Slide packs, rear service doors LH and RH - To introduce modified slide packs
SB 25-047			Applicable Equipment/Furnishings. Cabin service units - Modify attachments of steward's tables between Frame 69 and 72
SB 25-047	01		No effect Equipment/Furnishings. Cabin service units - Modify attachments of steward's tables between Frame 69 and 72
SB 25-048			No effect Equipment/Furnishings. Improve resistance to vibrations of lamp access panels
SB 25-048	01		No effect Equipment/Furnishings. Improve resistance to vibrations of lamp access panels
SB 25-049			Applicable Equipment/Furnishings. Slide packs, rear service doors - To introduce modified slide packs Type AES 39 and Type AES 40 at the right hand and left hand service doors respectively
SB 25-050			No effect Equipment/Furnishings. Slide/raft packs, intermediate passenger and service doors - To introduce modified slide/raft packs
SB 25-050	01		No effect Equipment/Furnishings. Slide/raft packs, intermediate passenger and service doors - To introduce modified slide/raft packs
SB 25-050	02		No effect Equipment/Furnishings. Slide/raft packs, intermediate passenger and service doors - To introduce modified slide/raft packs
SB 25-051			Embodied Equipment/Furnishings. Galley supplies LH and RH - To maintain rear galley supplies in the event of remote controlled circuit breaker failure
SB 25-051	01		No effect Equipment/Furnishings. Galley supplies LH and RH - To maintain rear galley supplies in the event of remote controlled circuit breaker failure

SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
SB 25-052			No effect Equipment/Furnishings. Control column seal - To introduce improved seal assembly
SB 25-052	01		No effect Equipment/Furnishings. Control column seal - To introduce improved seal assembly
SB 25-053			Not applicable
SB 25-054			No effect Equipment/Furnishings. Slide/raft pack, forward passenger door - To introduce a modified slide/raft pack Type AES/R29A
SB 25-054	01		No effect Equipment/Furnishings. Slide/raft pack, forward passenger door - To introduce a modified slide/raft pack Type AES/R29A
SB 25-055			No effect Equipment/Furnishings. Steward's seat - to introduce protective edge strip to trim
SB 25-056			Embodied Equipment/Furnishings. Emergency escape equipment - To introduce new standard of slide and slide/raft assemblies at the forward and rear doors and pressure/temp labels at intermediate doors
SB 25-057			Embodied Equipment/Furnishings. General - To revise certain cabin features to conform with FAA certification requirements
SB 25-057	01		Embodied Equipment/Furnishings. General - To revise certain cabin features to conform with FAA certification requirements
SB 25-057	02		No effect Equipment/Furnishings. General - To revise certain cabin features to conform with FAA certification requirements
SB 25-057	03		No effect Equipment/Furnishings. General - To revise certain cabin features to conform with FAA certification requirements
SB 25-058			Not applicable
SB 25-059			Embodied Equipment/Furnishings. Passenger compartment - To improve ceiling crossover features and attachments

SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
SB 25-060			Applicable Equipment/Furnishings. Escape slide/rafts - To introduce checks on power packs
SB 25-A-061			Applicable Equipment/Furnishings. Emergency equipment - 36 man liferaft type 36UA Mk 1 - Replacement of cylinder inflation valve
SB 25-062			No effect Equipment/Furnishings. Forward service door (RH) escape slide - To introduce a new standard of slide with a modified air cylinder assembly
SB 25-063			Not applicable
SB 25-064		Aug 30/79	Embodied Equipment/Furnishings. Escape slide/raft system - Intermediate passenger and service doors, to introduce a new standard of remote inflation bottle firing lever
SB 25-065			Not applicable
SB 25-066			Not applicable R Equipment/Furnishings. To improve rear R vestibule and No.7 galley floor sealing
SB 25-067		May 30/80	Embodied Equipment/Furnishings. Stewards seat - to correct malfunction of stewards seat harness stowage
SB 25-068			No effect Equipment/Furnishings. Forward intermediate passenger and service doors - Escape slide/raft system disarm mechanism buffer stop
SB 25-068	01		No effect Equipment/Furnishings. Forward intermediate passenger and service doors - Escape slide/raft system disarm mechanism buffer stop
SB 25-069			Not applicable Equipment/Furnishings. Fuselage - Protect electrical cables in fuselage roof
SB 25-070			No effect Equipment/Furnishings. Electronic equipment racking - To provide viewing window/access panels in flight compartment racking sealing panels for engine control amplifiers with fault indication module

	SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
	SB 25-070	01	Aug 30/80	Embodied
				Equipment/Furnishings. Electronic equipment racking - To provide viewing window/access panels in flight compartment racking sealing panels for engine control amplifiers with fault indication module
	SB 25-071			Not applicable
R				Equipment/Furnishings. Emergency equipment - Mod on installation on A/C for delivery to Air France
	SB 25-072			Not applicable
R				Equipment/Furnishings. Adaption of commercial furnishings on A/C for delivery to Air France
	SB 25-072	01		Not applicable
R				Equipment/Furnishings. Adaption of commercial furnishings on A/C for delivery to Air France
	SB 25-073			Not applicable
R				Equipment/Furnishings. To revise the intermediate door slide/raft units right and left hand
	SB 25-074			Applicable
				Equipment/Furnishings. Furnishings - Deletion of heat insulation between Frames 70B and 71 under cabin floor
	SB 25-075			Applicable
				Equipment/Furnishings. Intermediate door slide/raft - Location pocket for pressure regulating valve
	SB 25-076			Applicable
				Equipment/Furnishings. Captain's seat - Installation of crash lock pin on inner seat rail
	SB 25-077			Applicable
				Equipment/Furnishings. Emergency equipment - Slide pack forward service door - to introduce an inspection/check of the connecting rod on the girt flap
	SB 25-078			Applicable
				Equipment/Furnishings. Escape slides - Critical inspection of formed V-tape solutioned joints

SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
SB 25-078	01		Applicable Equipment/Furnishings. Escape slides - Critical inspection of formed V-tape solutioned joints
SB 25-079			Applicable Equipment/Furnishings. Escape slide/rafts - To provide additional security of release mechanism cable conduits to main breakout patch
SB 25-080			Applicable Equipment/Furnishings. Escape slide/rafts - Replacement of door sill apron slide disconnect lacing strip
SB 25-081		Mar 31/98	Embodied Equipment/Furnishings. Escape slide/raft system - To introduce alternative escape slide/rafts and escape slides manufactured from Polyurethane
R SB 25-082		Mar 31/99	Embodied Equipment/Furnishings. Escape slide/raft system - Forward passenger/service doors and intermediate passenger/service doors - Change of bearing sleeve material in the girt arm return spring assembly and extendable strut
R SB 25-082	01		No effect Equipment/Furnishings. Escape slide/raft system - Forward passenger/service doors and intermediate passenger/service doors - Change of bearing sleeve material in the girt arm return spring assembly and extendable strut
R SB 25-083		Mar 31/99	Embodied Equipment/Furnishings. Escape slide/raft system - Forward passenger/service doors and intermediate passenger/service doors - Addition of latch position indicators and body and cam profile changes
R SB 25-083	01		No effect Equipment/Furnishings. Escape slide/raft system - Forward passenger/service doors and intermediate passenger/service doors - Addition of latch position indicators and body and cam profile changes

R	SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
R	SB 25-083	01		No effect Equipment/Furnishings. Escape slide/raft system - Forward passenger/service doors and intermediate passenger/service doors - Addition of latch position indicators and body and cam profile changes
R	SB 25-084		Mar 31/99	Embodied Equipment/Furnishings. Escape slide/raft system - Intermediate passenger door and intermediate service door - Material change for the striker arm bearing bushes of the bottle firing mechanism
R	SB 25-084	01	Mar 31/99	Embodied Equipment/Furnishings. Escape slide/raft system - Intermediate passenger door and intermediate service door - Material change for the striker arm bearing bushes of the bottle firing mechanism
R	SB 25-084	02		No effect Equipment/Furnishings. Escape slide/raft system - Intermediate passenger door and intermediate service door - Material change for the striker arm bearing bushes of the bottle firing mechanism
R	SB 25-085		May 30/03	Embodied Equipment/Furnishings. Escape slide/raft system - Rear escape slide container improvements
R	SB 25-086			Not applicable Equipment/Furnishings. Escape slide/raft system - forward passenger door - change to breakout mechanism
R	SB 25-087			Not issued
R	SB 25-088			Not issued
R	SB 25-089			Not issued
R	SB 25-090		May 31/03	Embodied Equipment/Furnishings. Cockpit door - Introduction of a reinforced cockpit door with a new door surround and lock system
R	SB 25-090	01	May 31/03	Embodied Equipment/Furnishings. Cockpit door - Introduction of a reinforced cockpit door with a new door surround and lock system

	SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
R	SB 25-090	02	May 31/03	Embodied Equipment/Furnishings. Cockpit door - Introduction of a reinforced cockpit door with a new door surround and lock system
	SB 33-002		May 30/78	Embodied Lights. Floodlamp - To change the existing floodlamp at the forward baggage compartment door to one with a lens over the filament
	SB 35-007		Nov 30/76	Embodied Oxygen. Passenger service units (PSUs) - To replace the hose clips and check valve clips inside the oxygen box of each PSU, with modified clips (Part a) and to add Velcro straps on the upper outer face of each box (Part b)
R	SB 52-006		Feb 28/78	Embodied Doors. Passenger/crew and service - To permit visual check in the event of door warnings coming on in flight and introduction of contrasting colour safety markings
R	SB 52-006	01		Not applicable Doors. Passenger/crew and service - To permit visual check in the event of door warnings coming on in flight and introduction of contrasting colour safety markings
	SB 52-006	02	Nov 30/79	Embodied Doors. Passenger/crew and service - To permit visual check in the event of door warnings coming on in flight and introduction of contrasting colour safety markings
	SB 52-013		May 30/78	Embodied Doors. Forward and intermediate passenger/crew and service - To provide a mechanism function and lubrication check of door handle release button and external disarm mechanism
	SB 77-003		Nov 30/80	Embodied Engine Indicating. To delete the No.4 bearing overheat detection system
R	SB 77-003	01	Nov 30/80	Embodied Engine Indicating. To delete the No.4 bearing overheat detection system

SB/AEB NO	REV	INC. IN REVISION	DESCRIPTION
R SB 77-003	02	Nov 30/80	Embodied
R			Engine Indicating. To delete the No.4
R			bearing overheat detection system

CHAPTER 25

EQUIPMENT/FURNISHINGS

TABLE OF CONTENTS

PRINTED IN ENGLAND

PRINTED IN ENGLAND

PRINTED IN ENGLAND

PRINTED IN ENGLAND

PRINTED IN ENGLAND

PRINTED IN ENGLAND

PRINTED IN ENGLAND

PRINTED IN ENGLAND

PRINTED IN ENGLAND

PRINTED IN ENGLAND

PRINTED IN ENGLAND

PRINTED IN ENGLAND

PRINTED IN ENGLAND

GENERAL - CLEANING/PAINTING

1. General

RB It is a MANDATORY requirement that, if furnishings are removed
RB from the aircraft exposing structure between FR 41 and 72
RB stringer 13 left or right, a detailed inspection of the
RB exposed area is to be carried out to check for dents, scores
RB and cracks, paying particular attention to stringer webs.

The painted and plastic coated surfaces of the furnishing and floor coverings of the flight deck, passenger cabin, vestibules galley units and toilets may be cleaned with soft wiping cloths that have been immersed in a solution of cleaning fluid and water. For interior cleaning during aircraft turn-round, refer to 12-21-02.

Carpets should be cleaned by brushing or vacuum cleaning. A more extensive cleaning may be achieved by shampooing but the carpet must be removed from the aircraft. Where shampooing is carried out the carpet must be re-flameproofed and re-treated with anti-static agents.

2. Cleaning Procedures

A. Equipment and Materials

DESCRIPTION	PART NO.
Vacuum cleaner and attachments	-
Electrical extension lead	-
Hand cleaning tools, i.e. hard and soft brushes, dusters, pails, chamois leather	-
Supply of clean water	-
Cleaning agents for Hard and Soft furnishings and Paint:	
Oakite Fleetline - JC4, (Ref. 20-30-00, No.515)	-
Applied - 4-42, (Ref. 20-30-00, No.516)	-
Colosyl - 55, (Ref. 20-30-00, No.517)	-

DESCRIPTION	PART NO.
Cee Bee - A18, (Ref. 20-30-00, No.518)	-
Basol - 182A, (Ref. 20-30-00, No.520)	-
Diversey - DR 145A, (Ref. 20-30-00, No.519) For use on synthetic paints	-
Solvent - BAC M302, (Ref. 20-30-00, No.473)	-
Anti-static agents:	
Milstat - N20, (Ref. 20-30-00, No.142)	-
Nonidet - A10, (Ref. 20-30-00, No.143)	-
Flameproofing additives:	
Borax, (Ref. 20-30-00, No.144)	-
Boric acid, (Ref. 20-30-00, No.145)	-

B. Hard Furnishings (Manufactured from Polycarbonates)

NOTE: The items listed below are made from polycarbonate material and cleaning agents, other than those specified, must not be used:

1) End mouldings of the passenger overhead stowage bins.

2) Passenger service unit.

3) Strip light shades.

(1) Clean with a cloth moistened with a soap-water solution.

(2) Thoroughly dry with a clean, lint-free cloth.

C. Hard Furnishings (Other Than Polycarbonate)

NOTE: Due to the tendency of nicotine staining to build-up and become progressively more difficult to remove, it is recommended that all hard furnished panels are cleaned at frequent intervals.

(1) Produce a solution of cleaning fluid by mixing at least 5 parts of water to 1 part of a cleaning agent.

NOTE: In the toilet compartments the use of Diversey - DR145A cleaning agent is recommended when cleaning paint work.

(2) Clean the surfaces using soft wiping cloths, immersed and wrung out in the cleaning solution.

(3) Stubborn deposits on the panels, faced with Tedlar decorative film, may be cleaned using BAC M302 solvent, providing the following precautions are taken:

(a) Apply only to Tedlar faced panels.

(b) Do not apply to unprotected edges of the panels.

(c) The solvent should be applied using soft wiping cloths, moistened with the solvent.

(d) Excessive solvent must not be used.

(4) Wipe the surfaces over again with a clean cloth or sponge which has been immersed, and wrung out, in the diluted cleaning solution.

NOTE: Rinsing is not essential, and the use of excessive water must be avoided.

(5) Finally, wipe the surface with a clean, damp cloth, following by polishing with a clean dry cloth.

D. Soft Furnishings

(1) Carpets.

For cleaning carpets in situ, brushing or vacuum cleaning is recommended. When more intensive cleaning is required the carpets should be removed from the aircraft and all dirt/dust should be removed by shaking, brushing and then vacuum cleaning. Deeper cleaning can be effected by shampooing, using one of the cleaning agents diluted 5 parts of water to 1 part of cleaning fluid. When dry, freshen the carpet pile by vacuum cleaning.

NOTE: Aircraft carpets are subjected to flame-proofing prior to the initial fitment. In order to maintain this standard, after wet processing re-flameproof as detailed in para.3.

(2) Textiles and Fabrics.

(a) Flame-resistant treatment on decorative textiles are of a temporary nature and to ensure the maximum benefit from this treatment a dry cleaning process should be used whenever possible with re-flameproofing carried out at every fourth day cleaning cycle.

(b) Where wet processing is essential, the material is to be washed in a cleaning agent. This cleaning agent must be diluted by at least 5 parts of water to 1 part of cleaning agent. After the wet process, the material should be dried, and then re-flameproofed (Ref. para.3).

3. Flameproofing

In order to restore the flame-resistance to materials, the materials should be thoroughly dried and then immersed in a solution, made up by dissolving 5 lbs (2.3 kg) of Borax and 5 lbs (2.3 kg) of Boric acid into 10 gallons (45.4 litres) of clean water. Thoroughly wet the material and allow to air dry.

CAUTION: SPIN DRYING PROCESSES MUST NOT BE USED AFTER FLAME-PROOFING, AS THIS EXTRACTS THE SOLUTION AND RENDERS THE TREATMENT INEFFECTIVE.

4. Anti-static Treatment

In certain flight conditions of low humidity, a build-up of static electricity can occur resulting in persons receiving a static charge when touching metal objects. Precautions can be taken to minimise this effect by treating aircraft carpets in order to make them more moisture absorbent. The anti-static agents, specified in the materials list, consist of waxy solids and are applied by spray in an aqueous solution.

NOTE: Carpets must be removed from the aircraft to undergo this process.

A. Treatment of Wool, Mixed Wool and Artificial Fibre Carpets

Mix a solution of 2 per cent Milstat - N20 and clean water. Spray this solution onto the carpet at the rate of 2 pints to 14 sq yds (1.14 litres to 11.7 sq m) for effective anti-static treatment.

B. Treatment of Nylon Carpets

Mix a solution of 1 per cent Nonidet - A10 and clean water. Spray this solution onto the carpet at the rate of 2 pints to 14 sq yds (1.14 litres to 11.7 sq m) for effective anti-static treatment.

INSULATION BLANKETS - INSPECTION/CHECK

CAUTION: EXTREME CARE MUST BE TAKEN WHEN HANDLING THE INSULATION BLANKETS TO ENSURE THE BLANKETS ARE NOT CRUSHED OR CREASED WHEN BEING DISPLACED.

1. General

Above floor level, insulation blankets cannot be inspected unless all the furnishing trim, ceiling and sidewall panels, passenger service units and overhead stowage bins in the particular area have first been removed. By removing the furnishing trim and sidewall panels along either side of the passenger compartment, it is possible to gain access to most of the insulation blankets but the blankets can only be displaced from the floor level to below the window level.

Below floor level, access to insulation blankets over the nosewheel compartment and over the fuel tanks in the fuselage is obtained by removing the passenger seats, floor covering and panels. Blankets in the forward underfloor equipment compartment are reached through access panels in the bottom of the fuselage; those in the lower baggage compartment are reached by removing the compartment sidewall and ceiling panels.

2. Insulation Blankets

A. Equipment and Materials

DESCRIPTION	PART NO.
Endoscope with 0.5 in (12 mm) dia, 72 in (1828 mm) long probe	-

B. Preparation

(1) Remove equipment, furnishing trim, ceiling and sidewall panels, components, floor panels and access panels, as necessary, to effect access to the particular insulation blanket required.

C. Displacement of Blanket

(1) Displacement of blanket above floor:

(a) Release the self-attaching tapes around the periphery of each blanket.

(b) Gently, lift the insulation blanket by its bottom edge to form an arc and support it in this position.

NOTE: Blankets must not be raised where it is found that a duct or trunking is sandwiched vertically through a blanket.

(2) Displacement of blanket below floor:

(a) Release the self attaching tapes securing the blanket to the adjoining frame insulation strips and blankets, as necessary, to permit the blanket outer face to be inspected.

D. Inspection/Check

(1) General inspection:

(a) Inspect the outboard face of an insulation blanket, using the endoscope where necessary, to ensure that it is intact.

CAUTION: TAKE CARE THAT THE ENDOSCOPE DOES NOT PUNCTURE THE SURFACE OF THE BLANKET.

(b) Visually inspect the remaining outer covering of the blanket for damage and that the self-attaching tapes are secured to the blanket.

(c) Ensure that each blanket, on both faces, and the insulation filler is intact. If necessary, carry out the approved repair (Ref.25-00-11, Approved Repairs).

(2) Inspection of blankets above fuel tanks:

(a) In addition to the general inspection in operation (1), examine the insulation blankets above the fuel tank vapour seals for any sign of contamination by fuel.

(b) If any evidence of fuel contamination is found, determine the full extent of the contamination, removing additional floor panels and equipment if necessary.

(c) Remove all affected blankets and either obtain replacement insulation blankets for those found contaminated or carry out repairs (Ref.25-00-11, Approved Repairs).

NOTE: Examine and if necessary repair the vapour seal (Ref.21-25-00, Approved Repairs) and examine and repair the fuel tank leakage (Ref.28-11-00).

(3) Inspection of blankets in forward equipment compartment:

(a) Remove the fibreglass surround from the aperture of access panel 121FB.

(b) In addition to the general inspection given in operation (1), examine the insulation blankets and blocks for signs of hydraulic fluid contamination.

(c) Remove any contaminated blankets and blocks and either replace them with new blankets or carry out repairs (Ref.25-00-11, Approved Repairs).

NOTE: Check all adjacent hydraulic pipes and components for external leakage (Ref. 29-00-00, Inspection/Check) and, if necessary, take appropriate action.

E. Conclusion

(1) Replace all components, furnishing trim, ceiling and sidewall panels, previously removed to gain access to the insulating blankets.

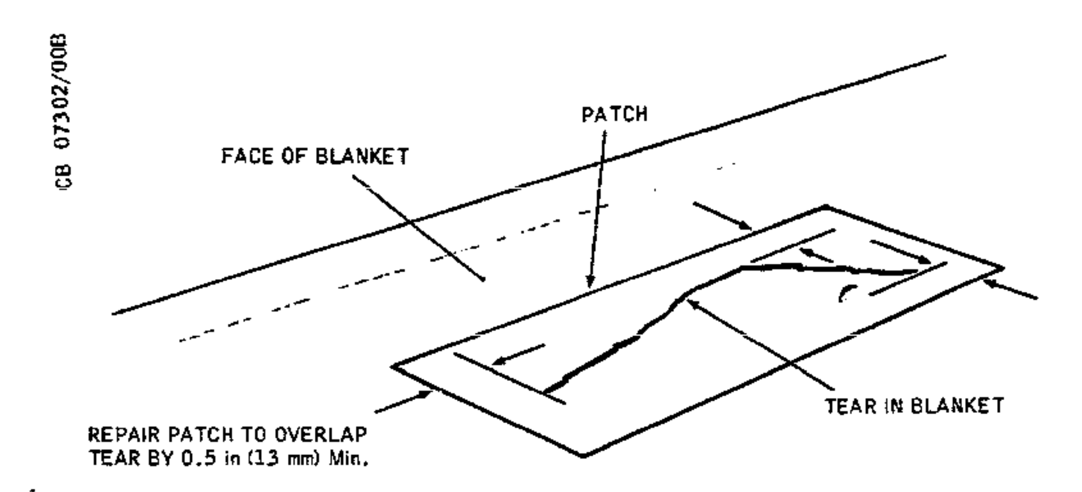
INSULATION BLANKETS - APPROVED REPAIRS

1. General

The insulation blankets between the furnishing trim and the fuselage skin are secured by adhesive sealing tape, interlocking tape, waterproof adhesive and stitching. The blankets are also supported by rigid glass fibre members which provide attachments for the furnishing trim.

The approved repair includes: a patch repair for the face of any blanket, an insert repair to be used when a blanket has been damaged through the inboard face insulation filler and the outboard face, and section replacement where damage is excessive or the necessity to gain major access to the fuselage structure.

2. Patch Repair (Ref. Fig. 801).



Insulation Blanket - Patch Repair
Figure 801

A. Limitations

(1) The material employed for the repair must be of an identical specification to that being repaired.

B. Equipment and Materials

DESCRIPTION	PART NO.
Nomex paper covering CM 349 (blue/grey)(Ref. 20-30-00,No.125)	-
Neoprene rubber coated fabric CM 338 (thin/buff)(Ref.20-30-00,No.126)	-
Neoprene rubber coated fabric CM 317 (thick/buff)(Ref.20-30-00, No.127)	-
Viton coated woven Nomex CM 083 (black) (Ref. 20-30-00, No.128)	-
Boscoprene 2402,2 part adhesive (Ref. 20-30-00,No.328)	-

C. Repair (Ref. Fig. 801)

(1) Determine which materials are necessary to complete the repair.

(2) Cut the patch to size (Ref. Fig. 801).

(3) Apply adhesive (Ref. 20-25-15).

<u>CAUTION</u>: AVOID ADHESIVE COMING INTO CONTACT WITH THE INSULATION FILLER MATERIAL OF THE BLANKET.

THE ADHESIVE WILL NOT PERMIT REPOSITIONING OF PATCH.

(4) Position the patch, and apply gentle pressure over the repair area to ensure air pockets are dispelled. Do not crush blanket.

3. <u>Insert Repair</u> (Ref. Fig. 802)

A. General

An insert repair may be carried out on an insulation blanket, where a blanket has been punctured or torn through the insulation material and outboard face.

This approved repair may also be used where major access to the fuselage structure is required and it is found impracticable to remove or displace a blanket (Ref. Fig. 802).

The blankets will be found covering either one or two frame widths. In a two frame wide blanket no air conditioning ducts or trunking is likely to be found. In the instances of a single frame blanket, a cautious exploration will locate possible hidden ducts or trunking.

B. Limitation.

NOTE: In certain instances the cut-out specified for repair may be used as a means of access to the structure.

(1) The repair must be in square or rectangular form and cover the entire damaged area.

(2) On replacement, all the varying configurations. and cut-outs must be included together with the replacement of attachment strips, cleats and interlocking tape.

C. Equipment and Materials

DESCRIPTION	PART NO.
Nomex, paper covering, CM 349 (blue/grey) bracket (Ref. 20-30-00, No.125)	-
Nomex, Viton-coated, woven, CM 083, (black) (Ref.20-30-00, No. 128)	-
Neoprene, rubber-coated fabric, CM 338 (thin/buff) (Ref. 20-30-00,No.126)	-
Neoprene, rubber-coated fabric, CM 317 (thick/buff) (Ref. 20-30-00,No.127)	-

DESCRIPTION	PART NO.
Boscoprene 2402, 2 part adhesive (Ref.20-30-00, No.328)	-
Interlocking tape, CM 345/1 Velcro-Hook component, 0.625 in (15.9 mm) wide (Ref.20-30-00,No.131) R	-
Insulating material as required:	
Insulation material, CM 311 1.15 lb/cu.ft (18.42 kg cu m) 1.0 in (25.4 mm) thick (Ref. 20-30-00,No 135) R	-
Insulation material, CM 311 1.15 lb/cu.ft (18.42 kg cu m) 0.5 in (12.7 mm) thick (Ref. 20-30-00, No.136) R	-
Insulation material, CM 311 1.15 lb/cu.ft (18.42 kg cu.m) 0.25 in (6.3 mm) thick (Ref. 20-30-00,No 137) R	-

D. Preparation.

(1) Gain access to the area to be repaired.

(2) Determine the materials necessary to complete the repair.

(3) Mark out the full extent of the repair on the inboard face of the damaged blanket.

NOTE: The repair must be in square or rectangular form and cover the entire damaged area.

(4) Cut the blanket and remove the marked-out damaged portion, using a sharp knife, through the inboard face covering, insulation filler and the outboard face of the blanket.

(5) Enlarge a portion of the cavity, by cutting away the

NOTE:
THE MATERIAL EMPLOYED FOR THE REPAIR MUST BE OF AN IDENTICAL SPECIFICATION TO THAT BEING REPAIRED
AVOID ADHESIVE COMING INTO CONTACT WITH THE INSULATION FILLER MATERIAL OF THE BLANKET

Insulation Blankets - Insert Repair
(Sheet 1 of 3)
Figure 802

CB 08036/00A

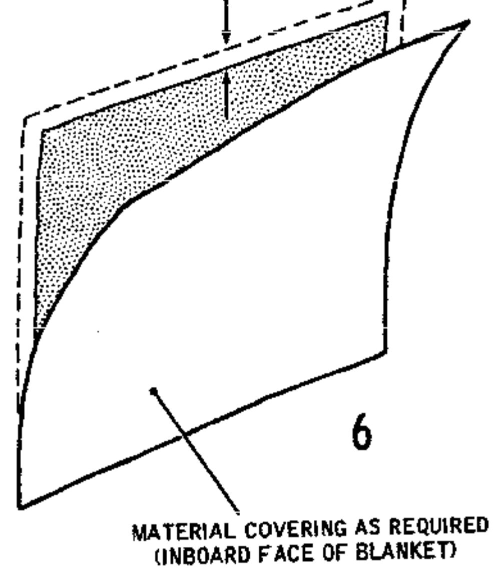
FINAL SINGLE LAYER INSERT 0.5 in (13 mm) OVERSIZE

5

OUTBOARD

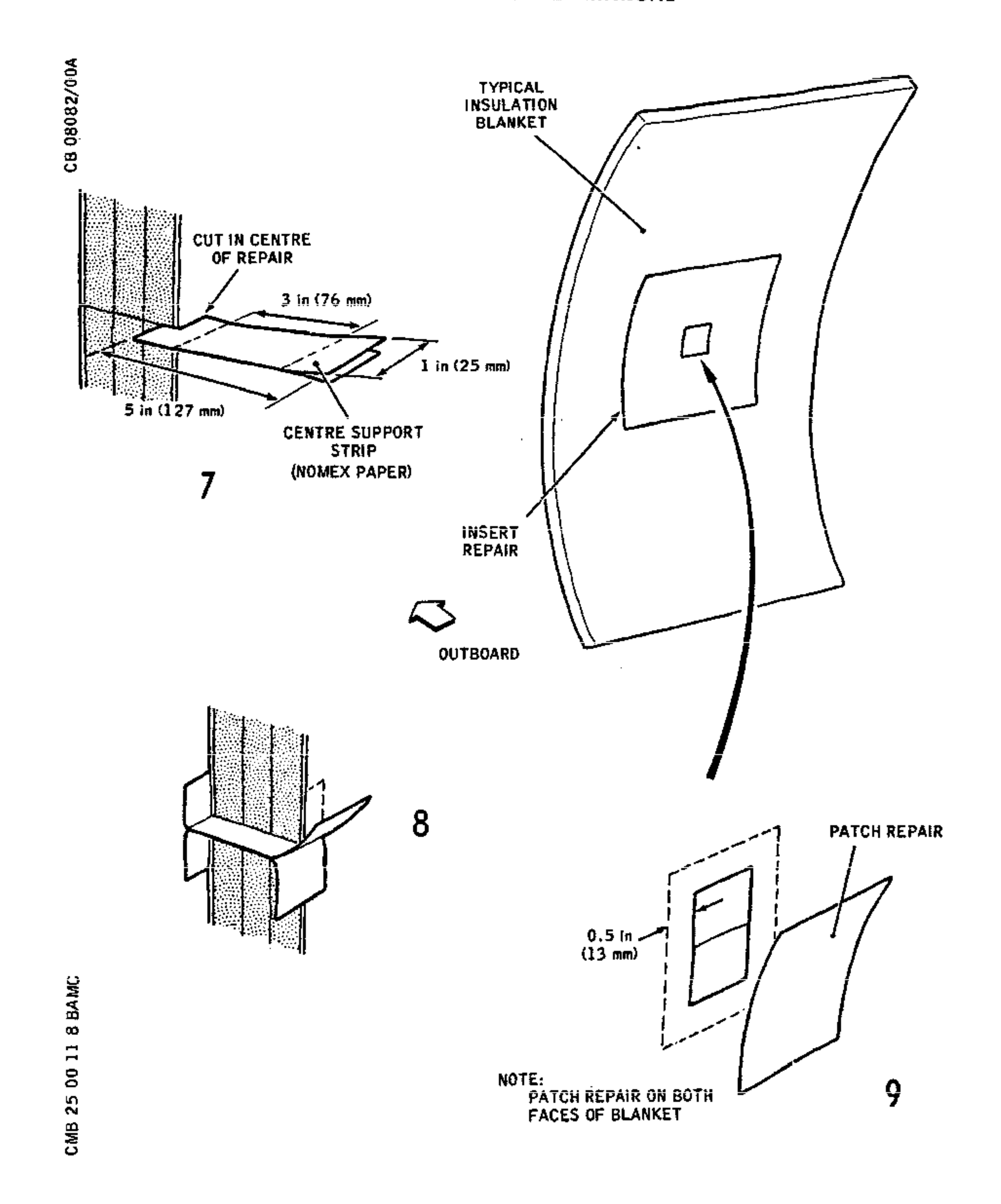
NOMEX PAPER

TWO LAYER INSERT



CMB 25 00 11 8 BAMB

Insulation Blanket - Insert Repair
(Sheet 2 of 3)
Figure 802



Insulation Blanket - Insert Repair
(Sheet 3 of 3)
Figure 802

initial inboard layer of filler and the front face of the blanket by 2.0 in (51 mm) all round (Ref. Fig. 802).

E. Repair

(1) Manufacture from Nomex paper CM 349, a patch repair for the outboard face of the blanket; with adhesive 2402 (Ref. 20-25-15) position the patch (Ref. Fig. 802).

CAUTION: THE ADHESIVE WILL NOT PERMIT REPOSITIONING OF THE PATCH.

NOTE: This patch may be of one or more pieces of Nomex paper depending on the size of the repair and the accessibility of the outboard face of the insulation blanket.

(2) Produce an initial insert, the correct thickness, of insulation material CM 311, cut to 0.5 in (13 mm) oversize.

(3) Position the insert inside the cavity and compress gently, into position to coincide with the in-situ outboard insulation material.

(4) Produce a second insert, 0.5 in (13 mm) oversize, and locate in the cavity to coincide with the second in-situ filler.

(5) Produce a final insert to fit the enlarged portion of the cavity, cut 0.5 in (13 mm) oversize, and gently compact into position to coincide with the final layer of in-situ insulation material.

(6) Cover the insert repair with a patch repair (Ref. Fig. 801) with correct fabric covering.

(7) If the size of the repair is excessive, for example, exceeds half the face width of a blanket, it will be necessary to add a centre support strip (Ref. para 3.F.).

F. Centre Support Strip.

(1) Cut two strips of Nomex paper, 1 in (25 mm) wide and 5 in (127 mm) long. Join the two strips together by the blue faces with adhesive 2402, leaving a 1 in (25 mm) portion on either end of the strip free from

adhesive.

(2) Make a 1 in (25 mm) slit in the centre of the insert repair, right through the blanket, and insert the centre support strip.

(3) With adhesive 2402, locate the support strip to both exterior faces of the insulation blanket (Ref. Fig. 802).

(4) Cover the ends of the support strip, on both faces of the blanket, with a patch repair (Ref. Fig. 801).

4. Section Replacement (Ref. Fig. 803)

A. General.

Where damage to an insulation blanket has occurred or where it is necessary to remove a section of the blanket to obtain access to the fuselage structure, the following approved repair should be used as a guidance.

B. Limitations

(1) The blanket may be cut at the appropriate position to gain access or to remove a damaged portion after calculating the amount of blanket to be removed, allowing for the blanket being in tension.

(2) On replacement of a section of a blanket all the varying configurations and cut-outs must be included, together with replacement of any attachment strips, cleats and interlocking strips.

C. Equipment and Materials.

DESCRIPTION	PART NO.
Nomex paper covering, CM349 (blue/grey) (Ref.20-30-00,No.125).	-
Neoprene rubber-coated fabric, CM338 (thin/buff) (Ref.20-30-00,No.126)	-
Neoprene rubber-coated fabric, CM317 (Thick/buff) (Ref.20-30-00,No127)	-

DESCRIPTION	PART NO.
Viton-coated woven Nomex, CM083 (black) (Ref.20-30-00,No.128)	-
Boscoprene 2402, 2 part adhesive (Ref. 20-30-00, No. 328)	-
Interlocking tape, CM 345/1 0.62 in (15.9 mm) wide R (Ref. 20-30-00,No. 131)	-

D. Preparation.

(1) Gain access to the blanket to be replaced.

(2) Determine the material necessary to complete the restoration.

CAUTION: MATERIAL SPECIFICATION MUST BE IDENTICAL TO THAT OF THE ITEM BEING RESTORED.

(3) Mark out the full extent of the blanket to be cut.

(4) Cut the blanket and remove the portion to be renewed.

(5) Trim the inboard layer of insulating material and
R the covering fabric to produce a 3 in (76 mm) step (Ref. Fig. 803).

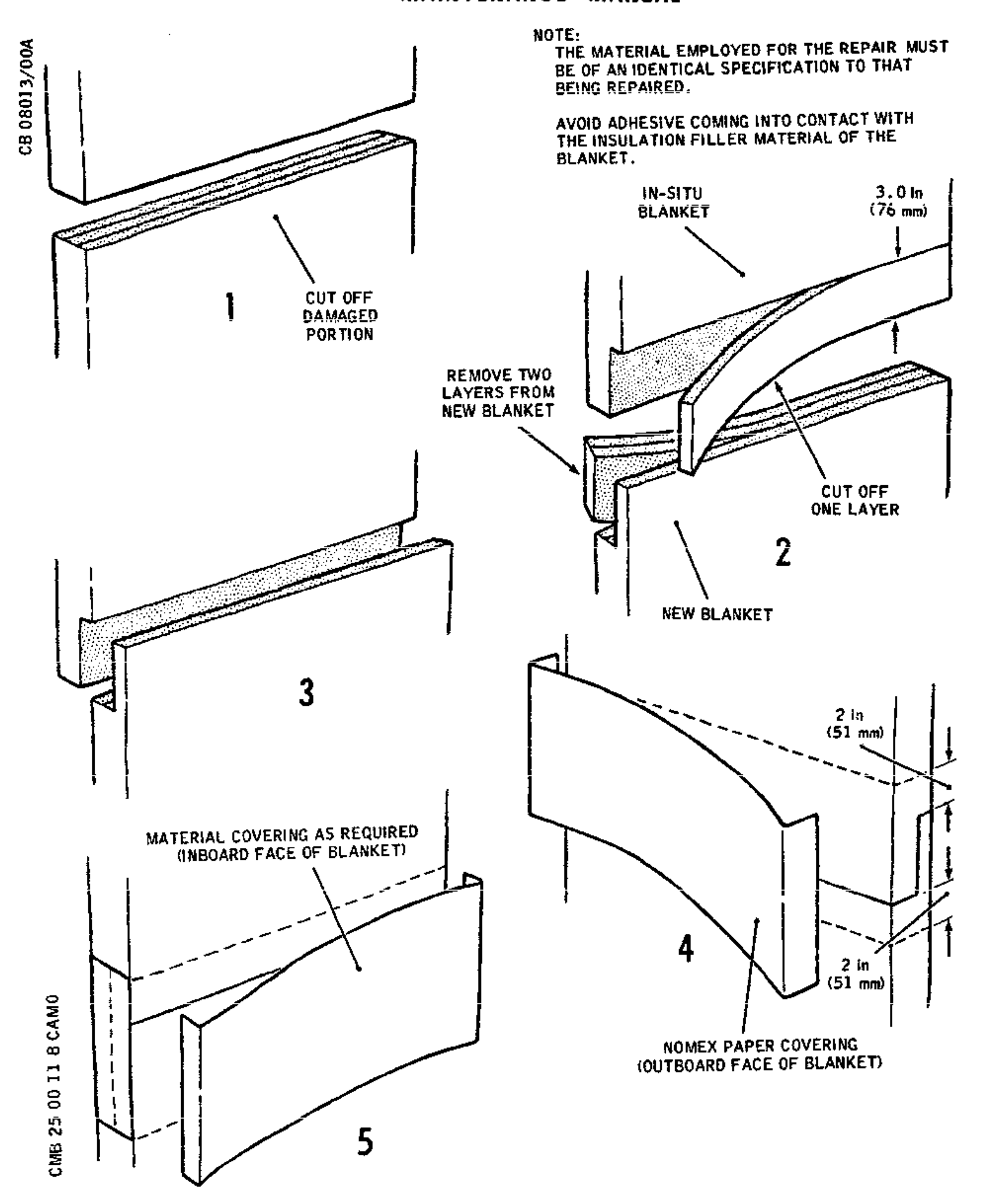
E. Replacement of Blanket Section.

(1) Check the measurement required, and mark-out the new blanket accordingly.

(2) Cut the new blanket and form a corresponding step to fit the step produced in operation D(5).

(3) Mate the two sections of the blanket together and support in position.

(4) With the correct covering material, and using adhesive 2402, seal the two sections of the blanket, together. (Ref. Fig. 803).



Insulating Blanket - Section Replacement
Figure 803

(5) Where necessary, add cleats, attachment strip and interlocking tape.

NOTE: Where replacement of the interlocking tape is necessary, it must be bonded with adhesive 2402 to a strip of Neoprene rubber-coated fabric CM 338 (or 317 as appropriate), before attaching the tape to the blanket.

(6) Reposition all equipment, components and furnishing trim previosuly disturbed to gain access to the insulation blanket.

5. Attachment Strip

A. General

Velcro (interlocking tape) attachment strips are attached, to the edges of the insulation balnkets, by Boscoprene adhesive. The attachment strips secure the blankets in position throughout the aircraft.

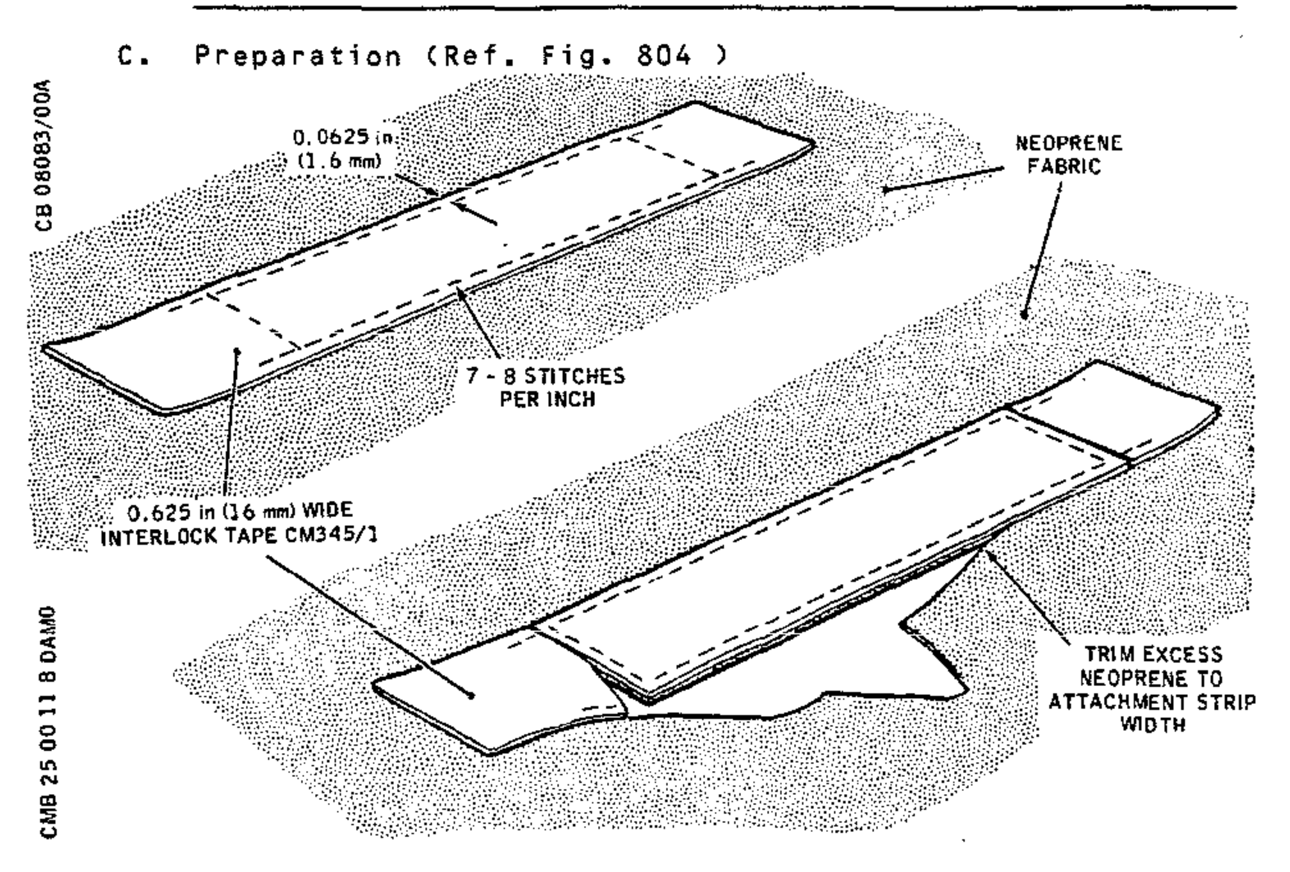
To increase the durability of the attachment strip it must be reinforced by adding a strip of Neoprene fabric CM 338 or 317 to the back of the tape, before attaching the tape to the blanket with the adhesive.

B. Equipment and Materials.

DESCRIPTION	PART NO.
Neoprene rubber coated fabric, CM 338 (thin/buff) (Ref. 20-30-00, No.126)	-
Neoprene rubber coated fabric, CM 317 (thick/buff) (Ref. 20-30-00, No.127)	-
Boscoprene 2402 2 part adhesive, (Ref. 20-30-00, No. 328)	-
Interlocking tape, CM 345/1 0.625 in (15.9 mm) wide, Velcro-Hook component R (Ref. 20-30-00, No. 131)	-
Machine, sewing	-

DESCRIPTION	PART NO.
Needle, sewing	-
Thread, CM 325 3 ply, No.250 denier (Ref. 20-30-00,No.133)	-

C. Preparation (Ref. Fig. 804)



Attachment Strip - Manufacture
Figure 804

(1) Measure the amount of new attachment strip required.

(2) Manufacture the strip by stitching together the Neoprene fabric and interlocking tape; using a single row of stitches, at a pitch of 7 - 8 stitches per inch. Stitch each end of the strip before

cutting the strip to the required length.

NOTE: The use of Neoprene fabric CM 338 or CM 317 is governed by the material used in the original blanket being repaired.

(3) Trim excess Neoprene fabric to suit the width of the interlocking tape.

(4) With the Boscoprene adhesive locate the manufactured attachment strip to the extreme edge of the insulation blanket.

R B 6. Blanket Replacement

A. Where a complete blanket needs replacing proceed as follows:-

(1) Wherever possible re-use the outer rubberised cover, otherwise, using the original as a guide make up layers of new insulation.

P/No. NCLA1583 - 1 in. thick
NCLA1627 - 0.5 in. thick.

to original thickness and shape.

(2) Completely enclose in a cover made from ORCON AN18, attaching this to the original cover or sealing up with tape OT6.

(3) Ensure that cut-outs in the blanket conform to the original shape. Cut and seal, if necessary, with tape OT6.

(4) Mark bag on inner face with the original part number.

RB 7. INSULATION BAG DUCT REPAIRS

Insulation Bags located at frames 20-22, 28-29A, 32-34 port and starboard, and 40-42 port cabin walls have ducts sandwiched vertically within the insulation. These ducts may be repaired using materials called up in I.P.C. chap. 25-22-20 Page 13-1, 25-22-80 Page 45-1 and 25-22-80 Page 50-1 cabin insulation installation.

A. Method

(1) Disconnect wall bag ducts and remove sinker duct attachment, see M.M. 25-22-23 Page 408 para. D(6).

(2) Attach new duct to top end of the duct in the wall bag.

(3) Pull old duct out of wall bag from bottom end until new duct is in place.

(4) Discard old duct, connect new duct, see M.M. 25-22-23 Page 410 para. E(9).

FIBRE-GLASS SUPPORT MEMBERS - APPROVED REPAIRS

1. General

Fibre-glass members support the insulation blankets and provide attachments for the furnishing trim.

This approved repair covers the repair and the replacement of sections of support members, and includes replacement of the Velcro interlocking tape which attaches the insulation blankets to the support member (Ref. Fig. 801).

A. Limitations

(1) Local repairs must incorporate at least the same number of glass cloth layers used in the manufacture of the damaged components. Equal numbers of glass cloth layers are to be attached to each face of the damaged area where possible.

(2) When replacing a section of the support member, the repair joint must incorporate an additional glass cloth layer, to those stated for local repairs, each side of the joint.

(3) Repairs are to be carried out away from attachment points, and must not affect the grip lengths of the fasteners.

(4) Overlapping of repairs is not permitted.

(5) In-situ repairs are permissible but care must be taken to ensure that adhesives do not contact the structure before curing.

B. Equipment and Materials

DESCRIPTION	PART NO.
Resin, Wresind R662 or Alpolit Sup 462 (Ref. 20-30-00,No.346)	-
Catalyst, C 10 (Ref. 20-30-00,No.348)	-
Accelerator, R999 (Ref. 20-30-00, NO. 349)	-
Aerosil Filler, Ref 20-30-00, No. 350)	

DESCRIPTION	PART NO.
Timonox additive flame proofing (Ref. 20-30-00, NO. A351)	-
Glass cloth, BS3396-3-P6/22 0.006 in (0.152 mm) (Ref. 20-30-00. No 129)	-
Release agent, Polyrinyl Alcohol, (Ref. 20-30-00, No 130)	-
Cleaning solvent, BAC M302 (Ref. 20-30-00, No 473)	-
Abrasive paper, 100 grade	-
Fitch brush	-
Applicator (non-metallic)	-

C. Repair

NOTE: The following procedures must be done as a complete and continuous process.

(1) Where necessary, obtain access to the damaged section of the support member, by removing the furnishing panels and insulation.

(2) Remove all loose and broken material from the damaged area. When the damage is more than a crack or a tear, the area shall be dressed out to a regular shape, with smooth corners. If damage to the support member is excessive, replace the member (Ref. Fig. 801).

(3) Prepare the surfaces to be repaired:

(a) Clean the surfaces by wiping them with a clean paper tissue, moistened with BAC M302 solvent, then wipe the surfaces dry with a clean dry tissue.

(b) Dry abrade the surface with 100 grade abrasive paper, to provide a fine matt finish.

(c) Remove all debris from the surface, using a vacuum cleaner or a dry brush.

(d) Thoroughly clean the abraded surfaces with a clean tissue, moistened with solvent, and wipe dry with a clean dry tissue.

(e) If required, locally support the area to be repaired with a suitable former, treated with the polyvinyl alcohol release agent.

NOTE: It is important to retain the original overall shape of the support member.

CAUTION: COMMENCE REPAIRS WITHIN TWO HOURS OF THE SUPPORT MEMBERS BEING PREPARED FOR REPAIR.

(4) Prepare the resin.

NOTE: To eliminate the resin draining away use a thixotropic mix. Where horizontal and relatively smooth surfaces are to be joined, use a normal mix, omitting the Aerosil filler.

A noticeable exothermic temperature rise due to the resin mix reaction will result when more than 8 oz of adhesive is mixed at one time and the mixture allowed to stand in a compact mass for more than 20 minutes.

The build-up of excessive exothermal heat with consequent shortening of usable life can be largely offset by pouring the adhesive into a shallow tray after mixing.

Accelerator and Catalyst must not be mixed in the absence of base resin.

(a) Thixotropic mix.

MATERIAL	CONSTITUENT	PROPORTION (BY WEIGHT)
Resin	Alpolit Sup.462	100 parts
Catalyst	R989	2 parts

MATERIAL	CONSTITUENT	PROPORTION (BY WEIGHT)
Accelerator	R999	2 parts
Flame-proof additive	Timonox	10 parts
Filler	Aerosil	4 parts

NOTE: The above proportions give a pot-life of 3 to 40 minutes, at 20 deg C. For a pot-life of 300 to 340 minutes, reduce the proportions of both the catalyst and accelerator to 0.5 parts by weight.

(b) Thoroughly stir the Timonox and the Aerosil (if required) into between 10 and 20 per cent of the total resin, until a uniform dispertion is obtained. If Aerosil filler is used, it should be dry. Where required, dry in an air-circulating oven for 30 minutes at a temperature of between 105 deg C and 115 deg C; and then cool to room temperature (15 deg C) prior to mixing.

(c) Thoroughly stir the accelerator into the mix obtained in operation (b) and disperse all this mixture into the main bulk of the resin.

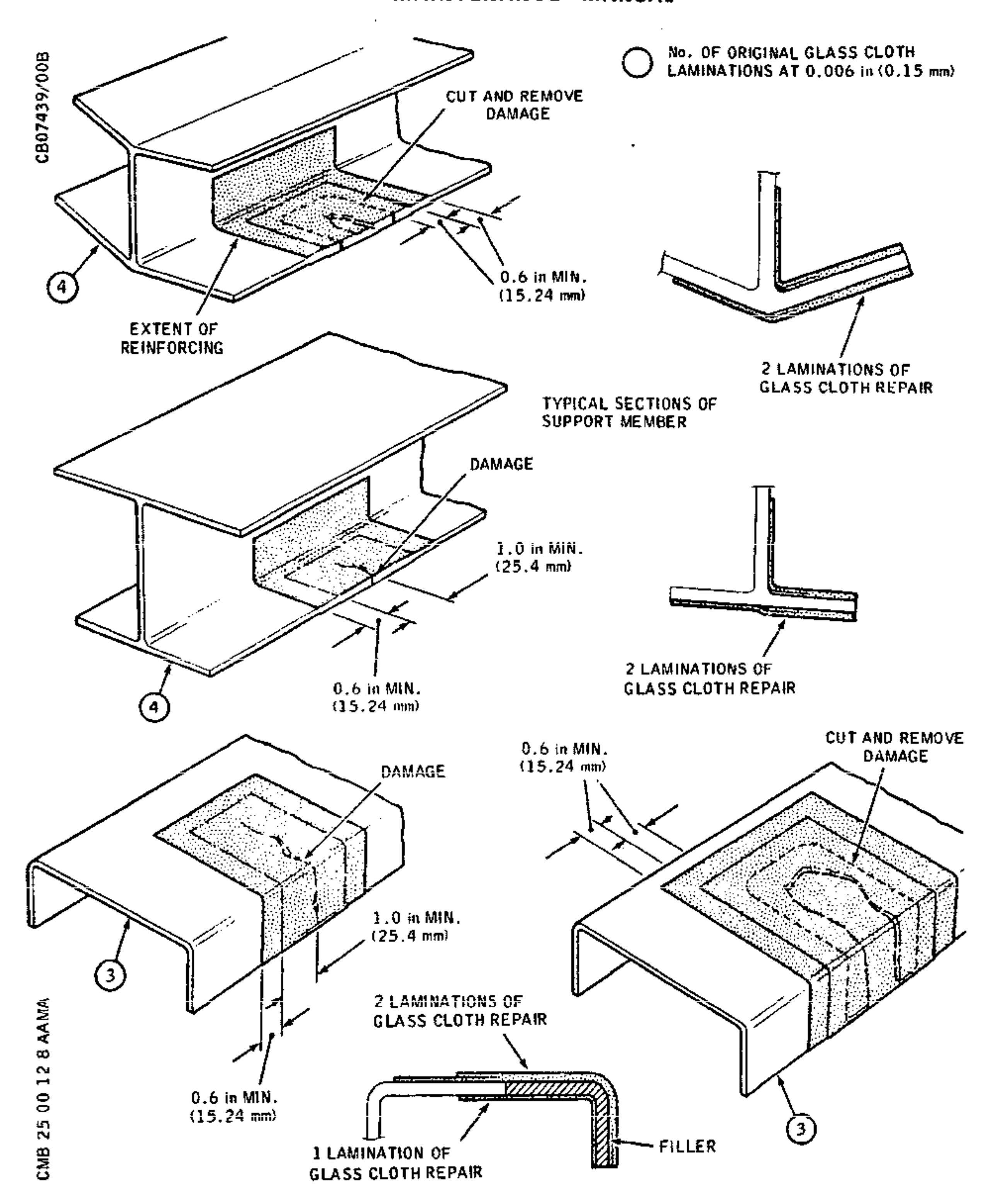
(d) Thoroughly stir the catalyst into the mixture prepared in operation (c).

(5) Lay-up the required number of resin impregnated glass fibre laminations (Ref. Fig. 801). Smooth out each layer, on the damaged area, before applying the next layer of glass fibre lamination.

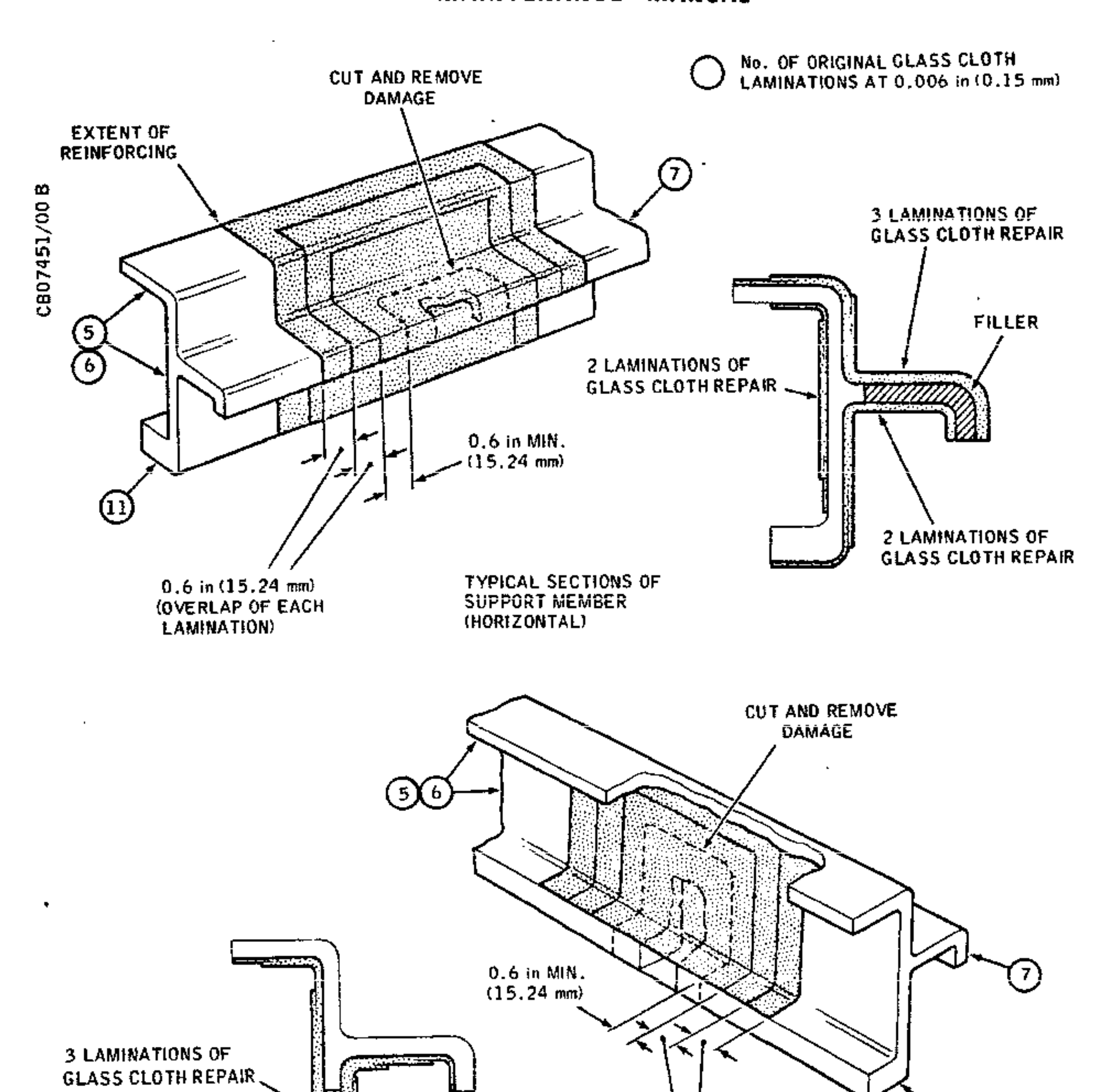
CAUTION: DO NOT REMOVE ANY CLAMPS OR FORMERS, OR TRIM AWAY ANY EXCESS FIBRE-GLASS, UNTIL CURING HAS BEEN COMPLETED.

(6) Curing

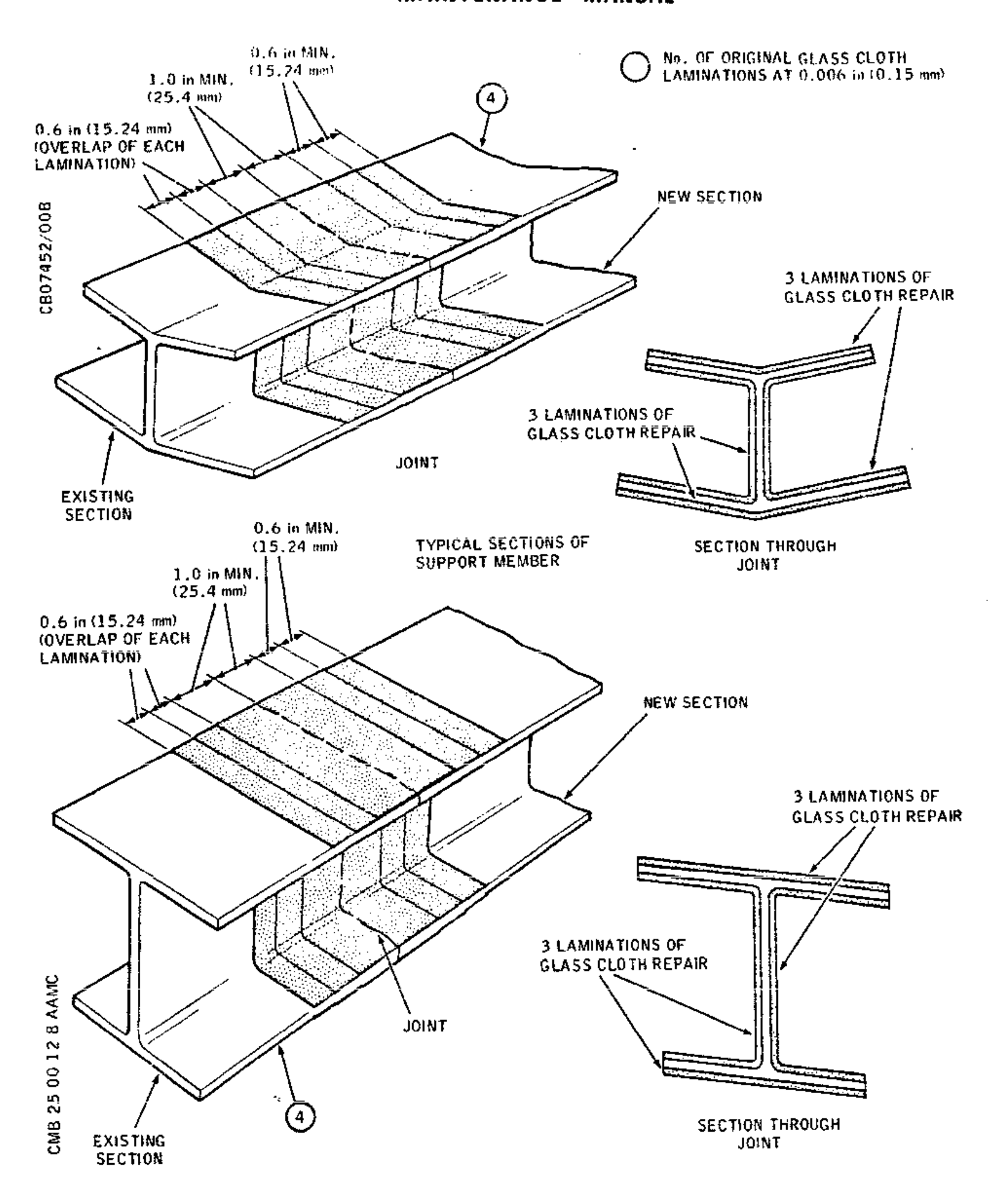
(a) Completed repairs shall be subjected to an initial cure at room temperature (15 deg C) for a minimum period of 16 hours.



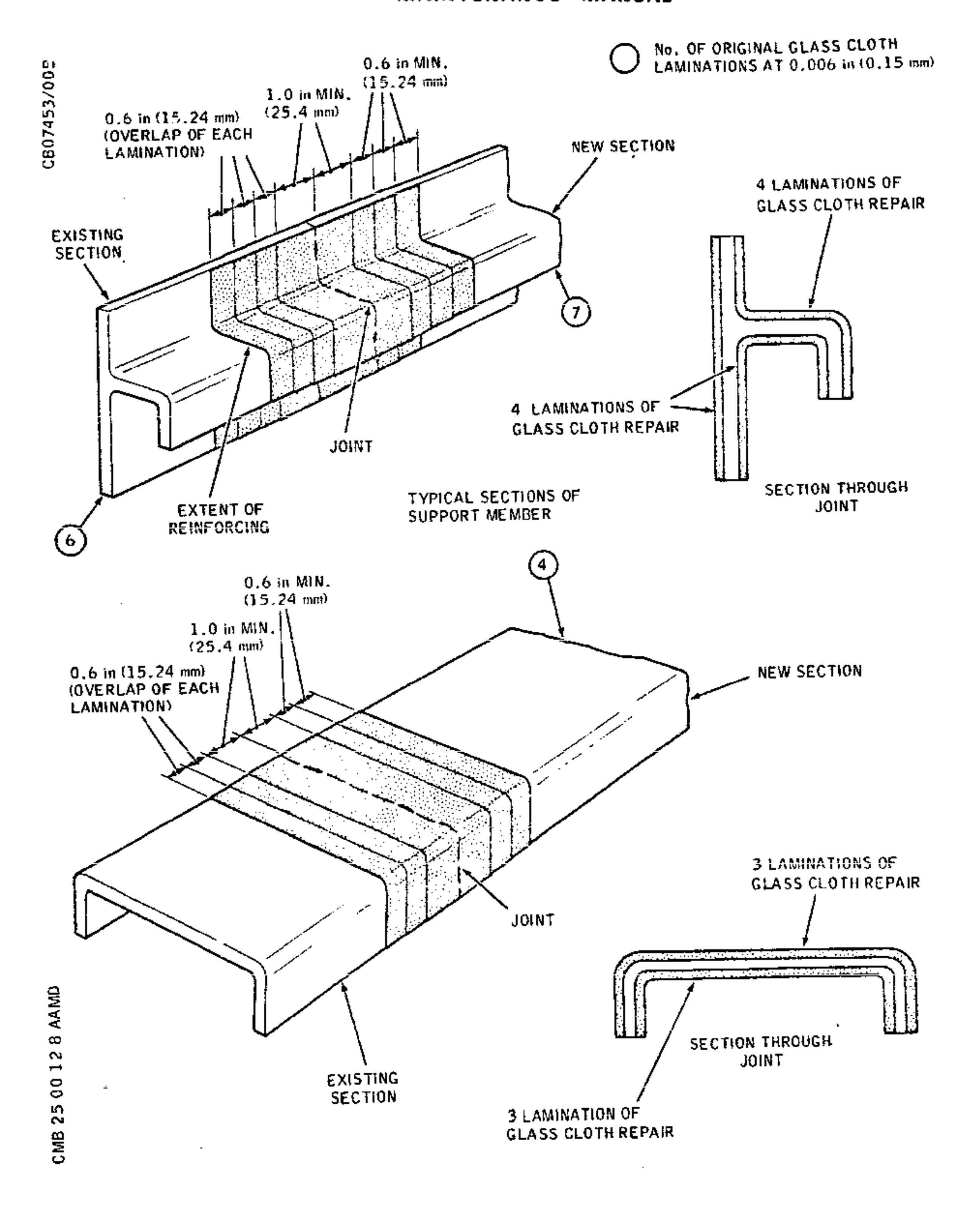
Flight and Passenger Compartment Support Structure (Sheet 1 of 4)
Figure 801



Flight and Passenger Compartment Support Structure (Sheet 2 of 4)
Figure 801



Flight and Passenger Compartment Support Structure (Sheet 3 of 4)
Figure 801



Flight and Passenger Compartment Support Structure (Sheet 4 of 4)
Figure 801

(b) Post curing can be either 8 hours (or overnight) at 70 deg C or 4 hours at 100 deg C.

(c) To shorten the curing period, the following alternative procedure may be adopted after jelling and solidification of the resin has taken place: locally heat the repair to 60 deg C for a minimum of 4 hours. The use of hot air for curing is preferred.

2. Attachment Strip

A. General

Velcro (interlocking tape) attachment strips, are attached to the glass fibre supports, with Boscoprene adhesive, to retain the insulation blankets in position. Each end of these strips are also secured by a rivet.

B. Equipment and Materials

DESCRIPTION	PART NO.
Neoprene rubber coated fabric,CM338 (Ref. 20-30-00, No 126)	-
Interlocking tape, CM 345/2 0.65 in (15.9 mm) wide (Ref. 20-30-00, No 131)	-
Boscoprene 2402 (Ref. 20-30-00. No 328)	-
Thinners, Bostik No. 6430 (Ref. 20-30-00, No 132)	-
Sewing machine	-
Sewing needle (Singer No. 18)	-
Thread, CM325,(3 ply No.250 denier) (Ref. 20-30-00, No 133)	-

C. Prepare

(1) Remove the damaged portion of attachment strip.

(2) Measure the amount of new attachment strip required.

D. Repair

(1) Manufacture the strip by stitching together the Pyrac fabric and Interlocking tape, using a single row of stitches at a pitch of 7 - 8 stitches per inch. Stitch each end of the strip before cutting the strip to the required length.

(2) Drill a hole 0.0625 in (1.6 mm) dia in each end of the replacement strip and also the adjacent end of the existing attachment strip. The hole is to be a minimum of 0.5 in (12.7 mm) from the end of the strip, and 0.31 in (0.79 mm) from the edge of the attachment strip.

(3) Mix the Boscoprene 2402 adhesive in the base to accelerator ratio of 20:1 by weight as per suppliers instructions, or in smaller quantities providing the same ratio mix is used. After mixing, add 50 per cent, by volume, of Bostik 6530 thinners. Thoroughly stir until an even constituency is obtained.

NOTE: The pot-life of this adhesive mixture is 8 hours maximum, at room temperature (15 deg C).

(4) Apply a brush coating of the adhesive mixture to the front face of the support member and the rear face of the attachment strip.

NOTE: Allow to dry in the air, at room temperature (15 deg C), for a period of between 2 minutes and 20 minutes until tack-free.

(5) Assemble the strip to the support member, smoothing out any bubbles, and drill the member flange to suit the holes previously drilled in the attachment strip.

(6) Rivet attachment strip to the support member using a rivet burr under the head and tail of rivet, (Ref. 20-26-26).

CREW SEATS - DESCRIPTION AND OPERATION

1. General

Four seats are mounted on rails in the flight compartment; three of the seats are electrically powered and accommodate the captain, co-pilot and third crew member (3CM). The fourth seat, which is manual in operation, accommodates the first supernumerary crew member. A fifth seat, which is not mounted on rails and has a fixed position at the rear of the other seats, can accommodate a second supernumerary crew member. The disposition of the seat rails for the movable seats enables the occupants of these seats to perform their flight duties with maximum mobility.

2. Captain's Seat Installation (Ref. Fig. 001)

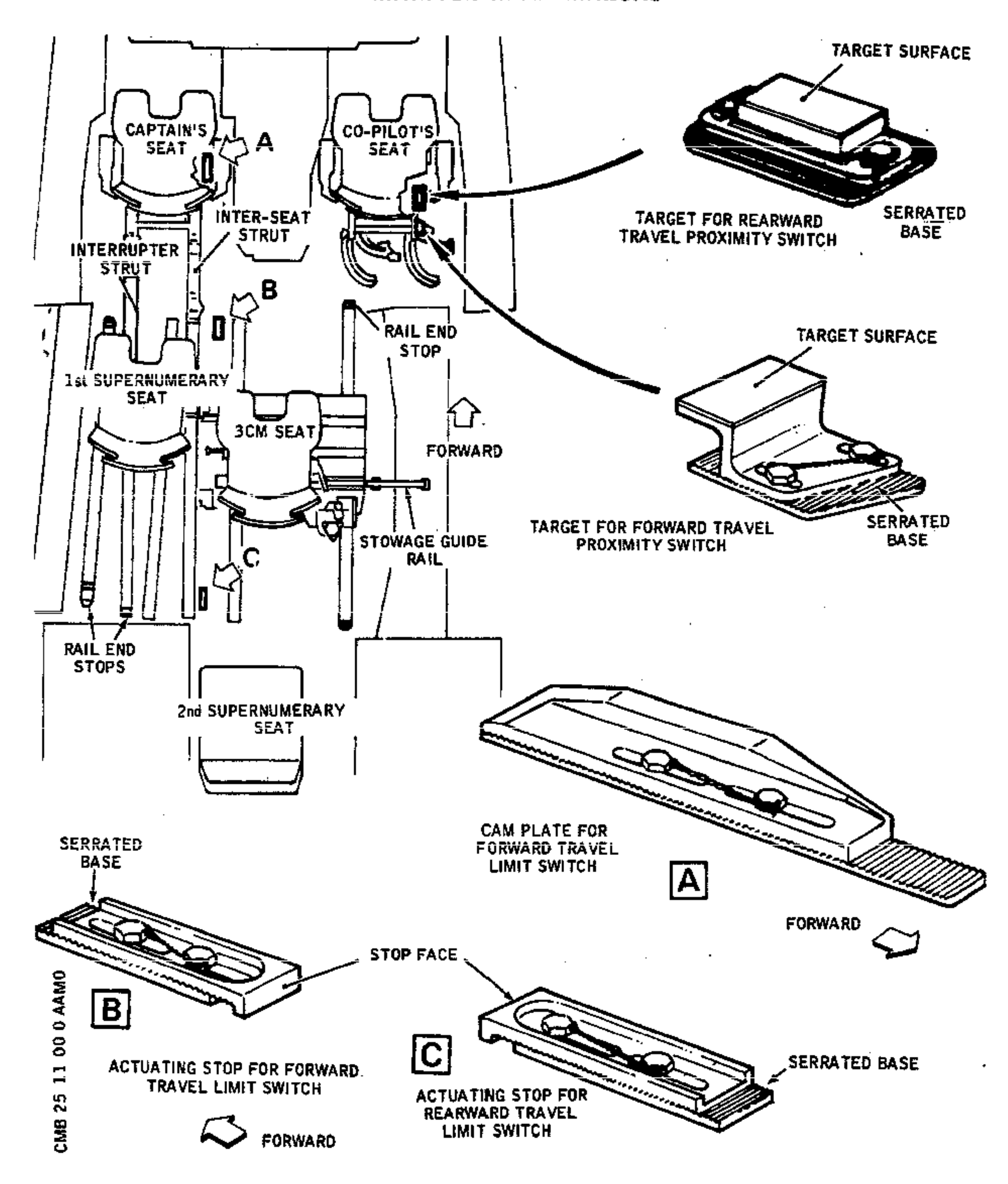
The captain's seat rails extend rearward, parallel to the aircraft centre-line, to terminate at the front of the left hand electronic rack, thus allowing the seat to be moved rearward to be aligned laterally with the 3CM station. Teeth, cut in the inboard side of the outboard rail, form the rack in which the seat drive pinion (Ref. 25-11-11) operates. A cam plate is located parallel to the inboard rail to operate the forward travel micro switch of the seat.

An interrupter strut (Ref.Para.7B.), to limit rearward movement of the seat, is positioned on the outboard rail. The front end of the strut is fitted with a shoe which rides on the rail. The rear end of the strut, when the first supernumerary seat is in use, engages with a latch assembly on the front structure of that seat (Ref. 25-11-41, Description and Operation). If the first supernumerary seat is not fitted, the strut is moved aft and its rear end engaged in the rear end stop on the outboard rail to allow an extension in travel of the captain's seat.

An inter-seat strut (Ref. Para.7C.) is positioned on the
inboard rail of the captain's seat between that seat and the
3CM seat to prevent collision between the two seats. The front
end of the strut is attached to the base structure of the
R captain's seat and a striker shoulder is located on the right-
R hand side of the strut to operate a limit switch on the 3CM
R seat, rides on the inboard rail.

3. Co-pilot's Seat Installation (Ref. Fig.001 and 002)

The four curved rails for the co-pilot's seat extend in an arc rearwards and outboard at the right of the flight compartment. A curved rack is fitted to the compartment floor between the two rear rails to engage the seat drive pinion. The aft end



Crew Seat Installation
Figure 001

of the rack is located by an eccentric spindle assembly and the front end by a bridge piece; adjusting screws in the bridge piece, in conjunction with the eccentric spindle, allow the rack to be aligned with the drive pinion.

The seat is mounted by spigots into four radius arms which are located on pivots outboard of each rail; the inboard end of each arm engages the flanged guide rails, the forward inboard one of which is drilled to receive the crashlock pin.

Forward and rearward adjustable micro and proximity switch tar-
R gets (Ref. Fig. 001) are mounted on serrated plates to the
R compartment floor outboard of the seat rails. The targets
R operate the respective proximity switches on the seat structure
(Ref. 25-11-21, Description and Operation).

4. <u>Third Crew Member's (3CM) Seat Installation</u> (Ref. Fig. 001)

The secondary trolley of the 3CM seat is mounted on rails which extend rearward behind the centre console on the flight deck approximately parallel to the centre-line of the aircraft. The outboard rail is drilled to receive the seat crashlock pin and is fitted with end stops. An adjustable limit switch
R actuating stop (Ref. Fig. 001) (Details B and C) is mounted
R on a serrated plate to the compartment floor between the cap-
R tain's seat inboard rail and the 3CM inboard rail at each end
R of travel of the 3CM secondary trolley.

A guide rail is fitted to the floor in the leg recess under the systems management panel at the 3CM station. The guide rail engages the base of the seat when the seat is moved into the leg recess for stowage (Ref. 25-11-31, Description and Operation).

5. <u>First Supernumerary Seat Installation</u> (Ref. Fig. 001)

The rails for the first supernumerary seat extend rearward behind the captain's seat and are angled outboard 4 deg from the aircraft centre-line. The inboard rail is laid between the two rails of the captain's seat and, subject to the position of that seat, the fore-and-aft travel of the supernumerary seat is approximately the same as that of the 3CM seat. Stops are fitted to each end of the outboard rail and both rails are drilled to receive the seat crashlock pins. The seat is moved fully rearward for stowage (Ref. 25-11-41, Description and Operation).

6. <u>Second Supernumerary Seat Installation</u> (Ref. Fig. 001)

The fixed, second supernumerary seat is situated to the rear of the other crew seats between the left-hand and right-hand

electronic racks. The seat is secured, when in use, at two positions, one a pivot bracket on the left-hand rack and the other a keyhole inset in the compartment floor. When not in use the seat is released from the floor attachment and folded against the racking. (Ref. 25-11-51, Description and Operation).

7. Operation

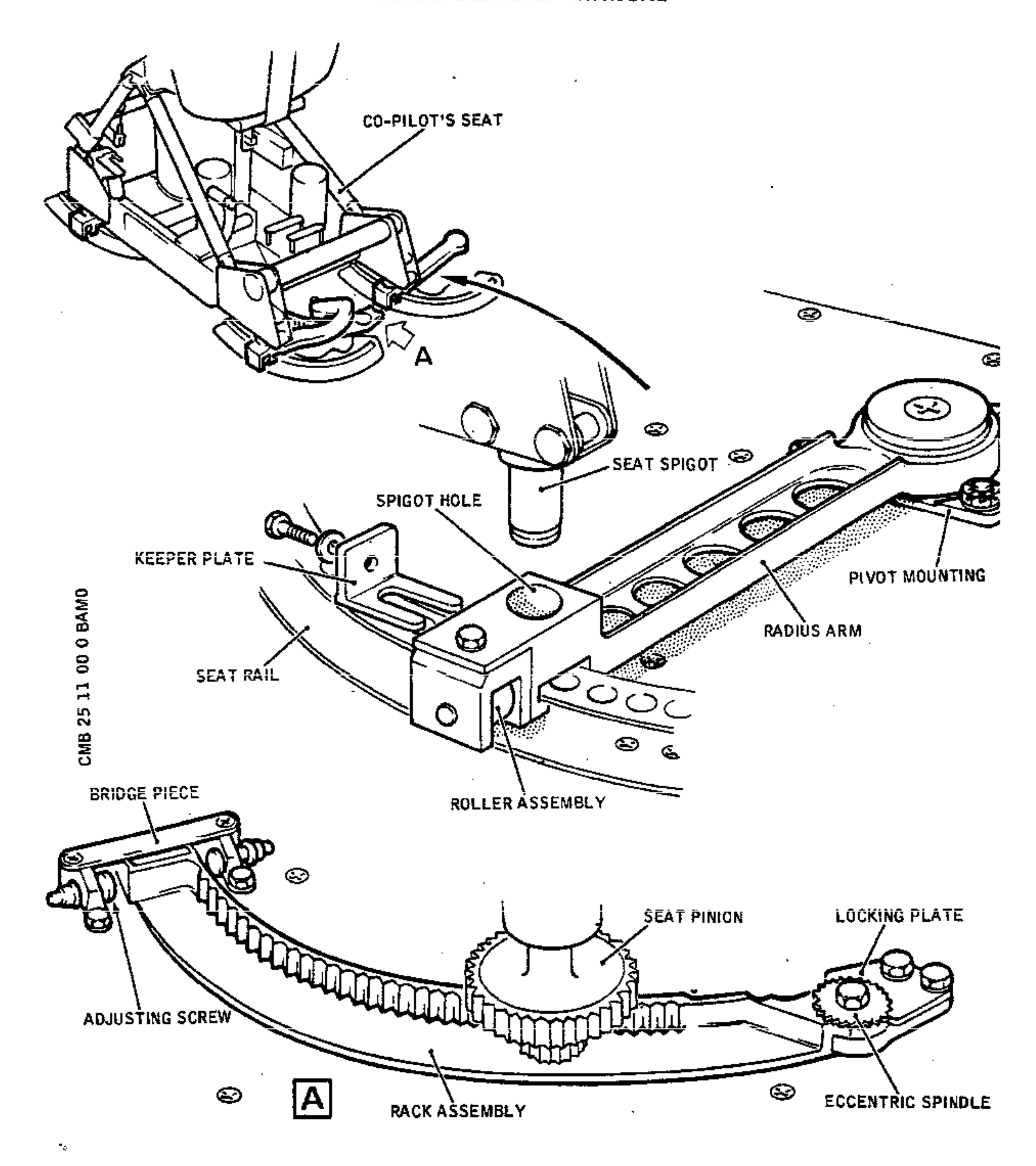
A. The travel of the three electrically powered seats is controlled by limit or proximity switches on the respective seats which are actuated by targets on the compartment floor or on the rail struts. Travel of the manually controlled first supernumarary seat is limited by the position of the rear rail stop on the outboard rail and by the location of the captain's seat.

B. Interrupter Strut (Ref. Fig. 003)

The interrupter strut limits the rearward movement of the captain's seat, the target on the front end of the strut actuates a proximity switch on the rear of the captain's seat to inhibit the rearward travel motor circuit of the seat.

C. Inter-Seat Strut (Ref. Fig. 003)

The interseat strut limits the forward travel of the 3CM seat and the rearward travel of the Captain's seat.
R The striker shoulder on the right-hand side of the strut
R actuates a limit switch on the secondary trolley of the
R 3CM seat to inhibit both the rearward travel motor circuit
R of the Captain's seat or the forward travel motor circuit
R of the 3CM seat. A manually operated control is provided
R on the 3CM seat trolley to allow override of the limit
R switch (Ref.25-11-31. Description and Operation).



Co-pilot's Seat Radius Arms and Rack Assembly
Figure 002

R

Interrupter and Inter-Seat Safety Struts
Figure 003

CAPTAIN'S SEAT ASSEMBLY - DESCRIPTION AND OPERATION

1. General

The captain's seat is mounted on rails extending aft along the left side of the flight compartment floor. Powered operation of the seat along its rails and in vertical adjustment is controlled from a 28 volt d.c. supply; in the event of power failure the seat can be adjusted horizontally and vertically by use of manually operated mechanisms. Provision is made for adjustment in tilt of the seat pan and seat back, also in the angle of the two armrests fitted to the seat back.

2. Seat Pan, Seat Back and Armrests (Ref. Fig. 001)

The seat pan hinges on a bracket assembly mounted on the top of telescopic tubes and can be adjusted through an angle of 10 deg.

The seat back hinges on the same bracket assembly and can tilt rearward through 16 deg. Brackets on each side of the seat back accommodate vertically mounted hinge pins on which the armrests are mounted. A knurled roller on the underside of each armrest allows the outboard armrest to be adjusted over a 2.0 in (50.8 mm) range at its tip and the inboard armrest over a 1.0 in (25.4 mm) range at its tip. Each armrest can be lifted through 90 deg to lock in this position; a thumb lever immediately aft of the knurled roller, when operated, allows the arm to be lowered. When in the raised position the armrest can be rotated around the vertical hinge to be stowed behind the seat back.

The seat back and seat pan have removable cushions which are held in place in the respective structures by strips of non-
R slip (Velcro) material bonded to the structure.

3. Seat Base Assembly (Ref. Fig. 001)

Vertical adjustment of the seat is effected by the telescopic tube assembly of the seat base. The tube assembly comprises an outer support tube accommodating an adjustable centre tube and inner tube at the top of which is mounted the bracket holding the seat pan and seat back. The centre tube is keyed to the outer and inner tube in a manner which permits only vertical movement.

A screw jack, motor-driven during power operation or rotated by a handle during manual operation, is located inside the tube assembly and is supported by an upper bearing assembly to the inner tube and by a lower bearing assembly to the base of the outer tube. The jack provides a 7 inch variation of seat

height.

The seat base accommodates the two electric motors and drive mechanisms; electrical components for the control circuits are mounted on a relay panel which is situated on the inboard (right hand) side of the seat.

Roller assemblies, mounted at each corner of the seat base enable the seat to travel along its guide rails. Two horizontal reaction rollers are fitted to the outboard side plate of the base and bear against the outer side of the outboard rail. The front reaction roller is opposed by a similar roller fitted to the base which bears against the inside face of the rail. The rear reaction roller opposes the seat drive pinion which engages the rack of the outboard rail; the rollers are mounted on eccentric spindles which permit adjustment to the clearance between the roller and the rail.

From fully forward to fully rearward, the seat travels 40.00 in (1016 mm) allowing the pilot to monitor the third crew member's station; the movement of the seat is powered by an electrical motor and gearbox unit driving the pinion which engages in the rail rack. To limit seat travel and prevent it colliding with either the mechanical stops at the end of the rails or the third or first supernumerary crew members seats, proximity switches are positioned on the seat structure to operate in conjunction with 'targets' fitted to rail struts and the flight compartment floor. The seat can be locked at pitches of 0.5 in (12.7 mm) over the forward 6.00 in (152.4 mm) of the rail by application of a safety lock, actuated by a lever and cable assembly, which fits into
R holes in the outboard seat rail (inboard seat rail after
R SB25-076).

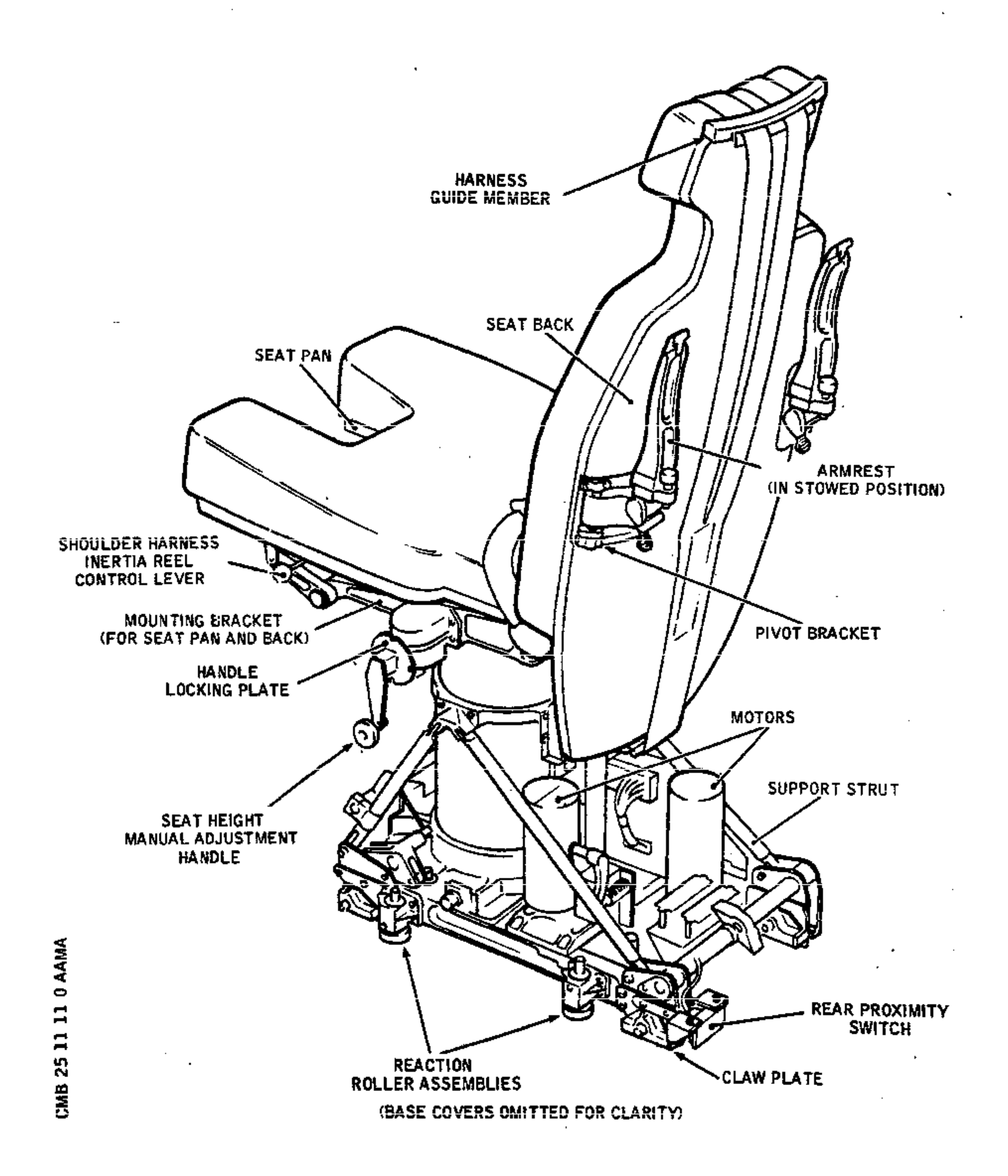
Control levers and switches for operation of the seat are, with the exception of the manually operated height adjustment handle, armrest controls and the shoulder harness inertia reel control, positioned on the right side of the seat.

4. Inertia Reel and Safety Harness (Ref. Fig. 001)

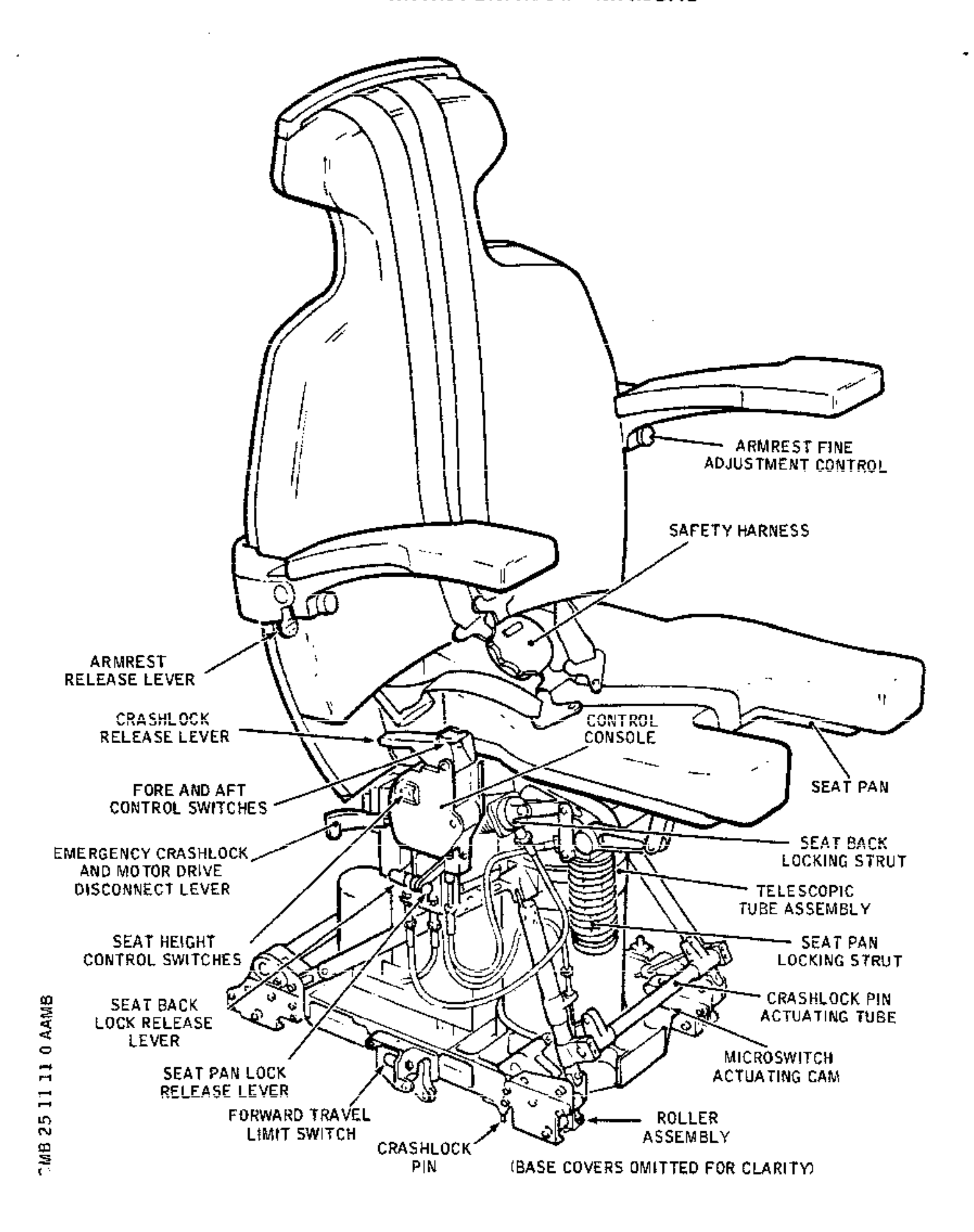
A safety harness comprising lap and shoulder straps, plus an anti-G strap, is fitted to the seat. The shoulder straps are controlled by an inertia reel mounted at the base of the seat back and pass through guide members at the top of the seat. The lap straps are self stowing, retracting into cylindrical containers mounted at the rear of the seat pan.

5. Operation

A. Manual Control (Ref. Fig. 001)



Captain's Seat and Controls (Sheet 1 of 2)
Figure 001



Captain's Seat and Controls (Sheet 2 of 2)
Figure 001

An emergency crashlock and motor drive disconnect lever is angled outward from the rear of the control console. This lever interconnects with the crashlock lever (Ref. para.6); its purpose is, in the event of failure in power control, to disengage the seat lock pin and motor drive/gearbox, so enabling the seat to be moved manually. The lever is lifted to effect disengagement.

Manual adjustment in seat height is facilitated by a cranked handle at the left hand side of the seat. To operate the handle, it is first lifted to disengage it from a locking plate, then rotated in the required direction to raise or lower the seat. At the required height the handle, which is spring-loaded, is released to re-engage with the locking plate.

Seat back position is maintained by spring-loaded locking pins; the locking pins can be disengaged by operation of a lever and cable assembly, the lever is located at the base of the control console. To adjust the tilt angle, the lever is operated and pressure is applied or eased on the seat back until the desired angle is achieved, then the lever is released to re-engage the lock.

Seat pan tilt is controlled by a similar mechanism as that of the seat back by an adjoining operating lever. Operation of the lever and alteration to weight moment on the seat adjusts the tilt, and release of the lever locks the position.

When the inertia harness control lever on the seat base is set forward, the inertia reel is in the unlocked condition, allowing the harness to be fully withdrawn from or retracted into the reel.

With the lever set to the rear, the inertia reel is in the locked condition which allows the harness to be retracted into the reel but prevents withdrawal of the harness.

When the lever is set to the centre position, the reel is in the inertia lock condition; this allows the harness to be withdrawn slowly from the reel with gradual pressure being applied, but causing it to lock, securely holding the occupant, when any sudden forward pressure is applied.

B. Power Controls (Ref. Fig. 001)

All power controls to operate the seat are grouped in the control console on the right hand side of the seat and are accessible to the co-pilot and third crew member.

The crashlock release lever is located on top of the console and disengages the seat lock pin when lifted. Two switches in the upper surface of the lever are ganged together and are sprung centre-off to operate in the sense of seat horizontal movement. The lever is interconnected with the emergency crashlock and motor drive disconnect lever.

Seat height is controlled by two switches similar to the horizontal control switches but mounted in a vertical plane on the side of the console. The switches operate in the sense of seat vertical movement.

R A power on-off (pull-on, push-off) switch, with a built in green 'power on' indicator lamp, controls the power supply to the seat; this switch is located on the rear of the control console. Associated electrical control units are located on a panel fitted to the inboard (right hand) side of the seat structure.

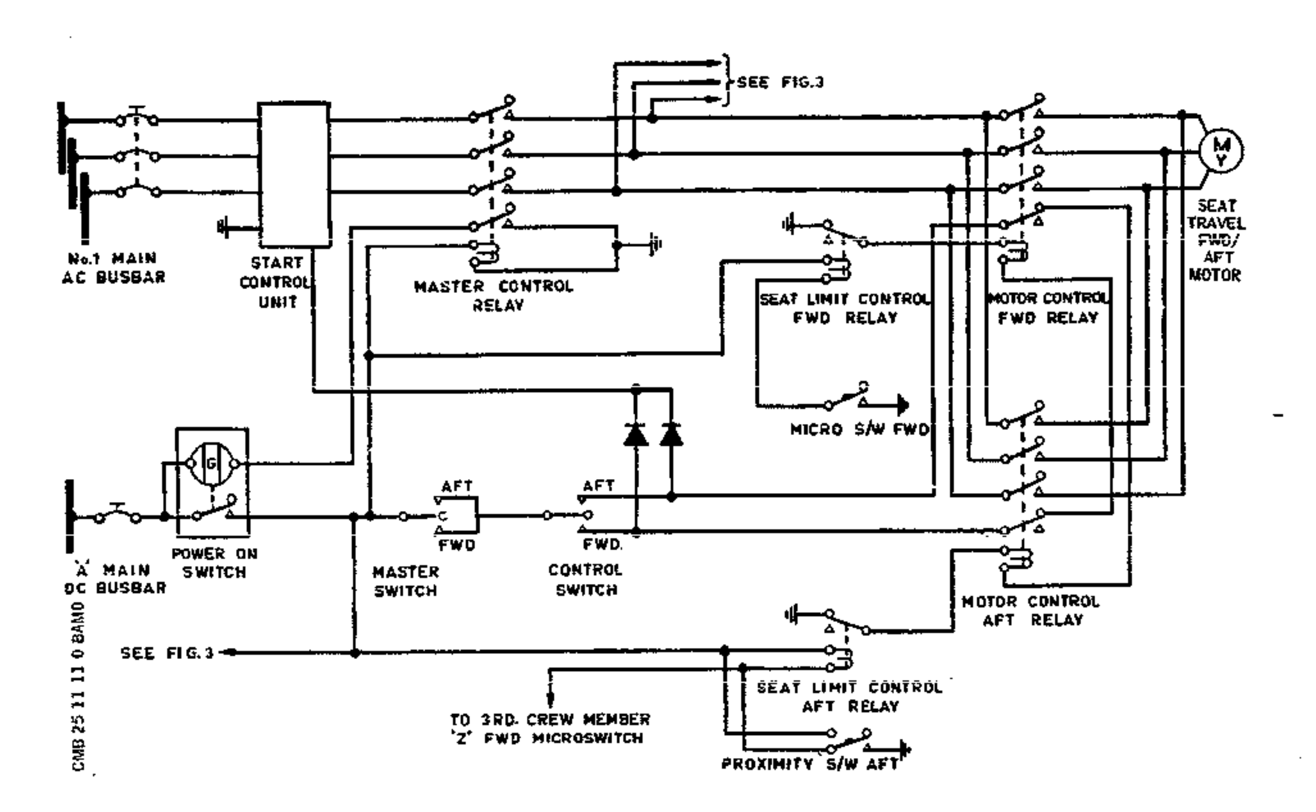
C. Functional Description (Ref. Fig.002 and 003)

With the illuminated power 'on-off' switch on the seat control console pulled out, 28 volts d.c. power is supplied to the seat control circuits. The master control relay is directly energized as indicated by the green indicator lamp in the switch being illuminated. A three phase supply is then armed via the relay contacts in readiness to drive the forward/aft and up/down seat travel motors.

When the switches controlling either of the two seat travel motors are operated a 28V d.c. signal is transmitted to the start control unit. This initiates circuitry which drops the voltage in one phase to the motor ensuring that the seat starts to move slowly and smoothly. In a few seconds the phase voltage returns to normal and the seat
R continues to move at a steady rate.

With both control switches, located in the top of the crashlock release lever, moved to the forward position the motor control forward relay is energized and the seat is driven forward until stopped by the forward travel limit microswitch being depressed. The seat limit control forward relay becomes energized, this in turn causes the de-energization of the motor control forward relay, thus interrupting the supply to stop the motor.

With both control switches moved to the aft position the motor control aft relay is energized and the seat is driven aft until stopped by the triggering of the aft proximity switch. As soon as this switch senses the target

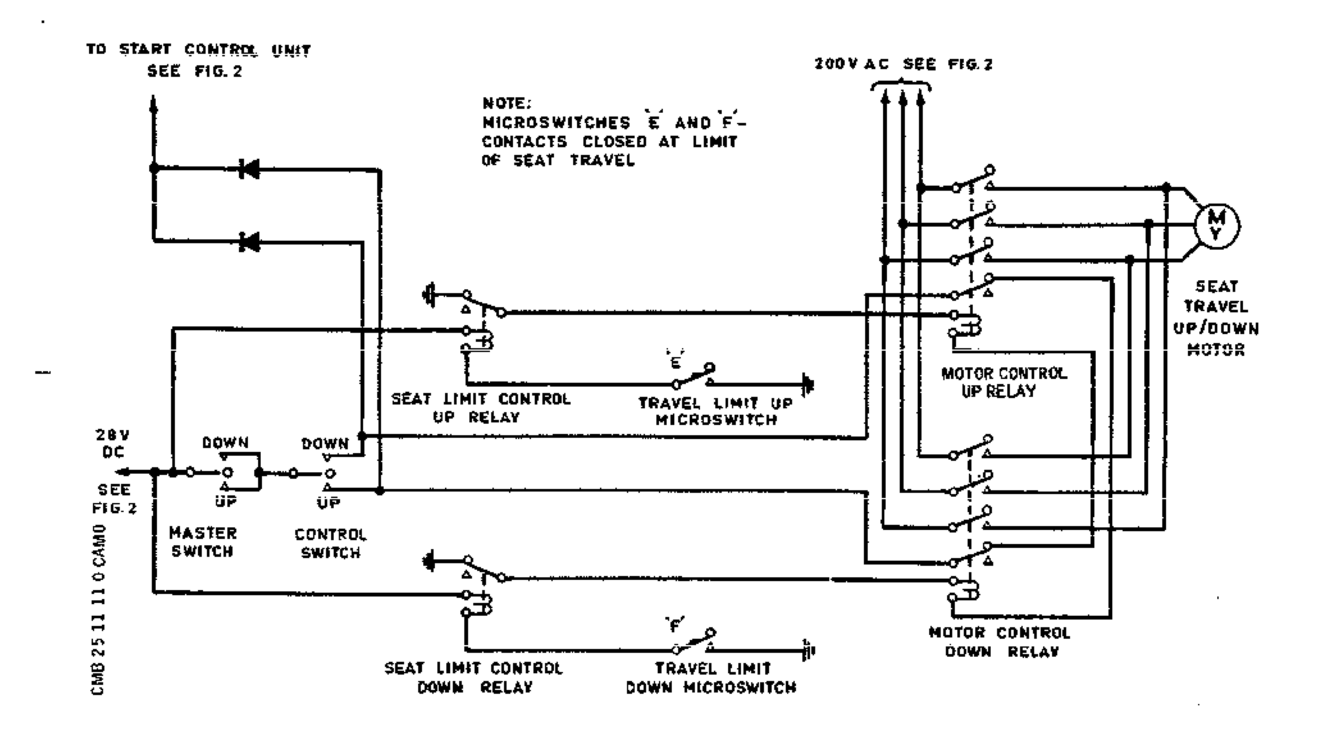


Fwd/Aft Seat Control
Figure 002

zone, located on the front of the strut attached to the first supernumerary seat base, switch trigger action takes place, earthing the energizing coil of the seat limit control aft relay. This relay becomes energized and this in turn causes the de-energization of the motor control aft relay, thus interrupting the supply to stop the motor. Collision with the 3rd crew member's seat being driven forward is averted as both motors are stopped simultaneously when the interseat strut between the captain's seat and the 3rd crew members seat actuates the 'Z' forward travel limit micro-switch on the 3rd crew members seat (Ref. 25-11-31).

R With both control switches, located on the side of the seat console sideplate, selected to up, the motor control up relay is energized and the seat is driven up until stopped by the up travel limit microswitch being depressed. This energizes the seat limit control up relay and this in turn causes the de-energization of the motor control up relay, thus interrupting the supply to stop the motor.

With both control switches selected to down the motor



Up/Down Seat Control
Figure 003

control down relay is energized and the seat is driven down until stopped by the down travel limit microswitch being depressed. This energizes the seat limit control down relay and this in turn causes the de-energization of the motor control down relay, thus interrupting the supply to stop the motor.

CAPTAIN'S SEAT ASSEMBLY - TROUBLE SHOOTING

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

1. General

Faults are dealt with on a probability basis and identified as a result of testing.

A defect can be isolated with the aid of trouble shooting procedures (Ref. para.3), and traced through OK and NOT OK paths to the appropriate charts or other specified rectification action as may be necessary. If a defect occurs, perform the appropriate rectification action, then repeat the operation at which the defect was encountered, to ensure that the operation is OK.

Bracketed numbers in the procedures and charts indicate items on the component identification table (Ref. Table 101). The table provides information, including component location, required for rectification. Each chart specifies any ground equipment required for that particular task.

All procedures dealing with trouble shooting are based on the assumption that electrical wiring is serviceable, and that electrical power is available unless otherwise stated. If the fault is not rectified, check the wiring in accordance with the Wiring Diagram Manual (Ref. Table 101).

NOTE: Malfunctioning diodes are treated as wiring faults.

2. Preparation

A. Ensure that the appropriate circuit breakers are set (Ref. Table 101).

B. Make available electrical ground power (Ref. 24-41-00).

R 3. Trouble Shooting

```
R      *****************************************
R    A.*Prepare to trouble shoot (ref. para. 2)*
R      *Set power switch (3), on seat console  *
R      *to "ON" - check green indicator (3), in*
R      *switch knob, illuminates. If circuit   *
R      *breakers (1),(2) persist in tripping - *
R      *Chart 101.                             *
R      *****************************************
R            ||             |
R            ||             |          ------------------------------------
R            OK             --NOT OK -|If green indicator (3) fails to |
```

```
          ||                          |illuminate - Chart 102.          |
          ||                          -----------------------------------
          ||
   ****************************************
B.*Lift emergency crashlock lever; check  *
  *manually that seat moves easily over   *
  *its full travel.                       *
  ****************************************
          ||          |
          ||          |               -----------------------------------
          OK          --NOT OK--|Chart 103.                       |
          ||                          -----------------------------------
          ||
C.****************************************
  *Lift crashlock release handle and      *
  *operate forward/aft tracking switches  *
  *(4/5) - check seat moves to, and is    *
  *stopped by, forward and aft limit      *
  *switches (19), (20).                   *
  ****************************************
          ||          |
          ||          |               -----------------------------------
          OK          --NOT OK--|1. Seat fails to move either     |
          ||                    |   forward or aft - Chart 104.   |
          ||                    |2. Seat moves forward but not    |
          ||                    |   aft or aft but not forward -  |
          ||                    |   Chart 105.                    |
          ||                    |3. Limit switches (19), (20)     |
          ||                    |   fail to switch off motor (13)|
          ||                    |   - Chart 106.                  |
          ||                    |4. Seat starts with high rate of|
          ||                    |   acceleration or moves slowly |
          ||                    |   or not at all - check for    |
          ||                    |   correct functioning of start |
          ||                    |   control unit (23), diode (24)|
          ||                    |   or CB (1).                    |
          ||                          -----------------------------------
          ||
   ****************************************
D.*Pull manual lift handle from stowage   *
  *and turn it in both directions,to fully*
  *raise and lower seat.                  *
  ****************************************
          ||          |
          ||          |               -----------------------------------
          OK          --NOT OK--|Check drive mechanism to ensure |
          ||                    |nothing has seized or broken.    |
          ||                    |Check telescopic tubes for       |
          ||                    |evidence of damage causing       |
          ||                    |seizure. Rectify and retest.     |
          ||                          -----------------------------------
```

```
R          ||
R   ****************************************
R  E.*Operate height switches (6/7) - check*
R    *seat moves up and down,and is stopped*
R    *by limit switches (21),(22).         *
R    **************************************
R          ||           |
R          ||           |         ---------------------------------
R          OK           --NOT OK--|1. Seat fails to move up or down|
R          ||                     |   under power = Chart 107.     |
R          ||                     |2. Seat moves up but not down or|
R          ||                     |   down but not up - Chart 108. |
R          ||                     |3. Limit switches (21), (22)    |
R          ||                     |   fail to switch off motor (14)|
R          ||                     |   - Chart 109.                 |
R          ||                     ---------------------------------
R          ||
R   ****************************************
R  F.*Lift seat pan tilt lever - check seat *
R    *pan tilts through 10 deg.and locks at *
R    *intermediate positions.               *
R    ****************************************
R          ||           |
R          ||           |         ---------------------------------
R          OK           --NOT OK--|Seat pan fails to tilt - Chart  |
R          ||                     |110.                            |
R          ||                     ---------------------------------
R          ||
R   ****************************************
R  G.*Lift seat back tilt lever - check seat *
R    *back tilts through 12 deg. and locks   *
R    *at intermediate positions.             *
R    ****************************************
R          ||           |
R          ||           |         ---------------------------------
R          OK           --NOT OK--|Seat back fails to tilt -       |
R          ||                     |Chart 111                       |
R          ||                     ---------------------------------
R          ||
R   ****************************************
R  H.*Set inertia harness control lever to   *
R    *"111".Release lever, check that it     *
R    *returns to "1", that harness can be    *
R    *slowly withdrawn from reel, that if    *
R    *harness is released it will be         *
R    *automatically taken up by the reel.    *
R    *Withdraw strap from reel with sudden   *
R    *jerk - check movement blocked by reel  *
R    *and when released strap makes audible  *
R    *rattling sound as it winds back on reel*
R    ****************************************
```

```
R          ||                  |
R          ||                  |          ---------------------------------
R          OK                  --NOT OK--|Lever fails to return to "1",   |
R          ||                            |reel fails to release or lock,  |
R          ||                            |wind back after jerk is not     |
R          ||                            |accompanied by rattling sound - |
R          ||                            |check route of control cable or |
R          ||                            |renew reel assembly.            |
R          ||                             ---------------------------------
R          ||                                             |        |
R     *****************************************           |        |
R   J.*Move lever to "111" and release it -   *           |        |
R     *check that lever returns to "1", and   *           |        |
R     *strap moves freely in both directions  *           |        |
R     *****************************************           |        |
R          ||                  |                          |        |
R          OK                  --NOT OK--------------------        |
R          ||                                                      |
R     *****************************************                    |
R   K.*Pull out part of strap and hold it     *                    |
R     *still, move lever to "11" - check      *                    |
R     *forward movement of strap is blocked   *                    |
R     *and when released, strap winds on reel *                    |
R     *making audible rattling sound.         *                    |
R     *****************************************                    |
R                              |                                   |
R                              --NOT OK-----------------------------
```

```
*******************************
*CIRCUIT BREAKER (1), (2)     *
*PERSISTS IN TRIPPING         *
*******************************
```

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V, 3PH;28V DC	-
CIRCUIT BREAKER SAFETY CLIPS	-

```
-------------------         -------------------         -------------------
|Set switches (3),|         |Check if circuit |         |1. Check for     |
|(4/5) and (6/7)  |-YES-    |breaker still    |-YES-    |   faulty CB -   |
|to "OFF" or      |         |trips.           |         |   renew if      |
|centre position. |         -------------------         |   necessary     |
-------------------                  |                  |2. Check for     |
                                     NO                 |   earthed wiring|
                                     |                  |   - rectify.    |
                                     |                  -------------------
                            -------------------
                            |Set switches     |
                            |progressively to |
                            |operating pos-   |
                            |ition until CB   |
                            |trips - dis-     |
                            |connect equipment|
                            |in faulty circuit|
                            |in sequence and  |
                            |check each time  |
                            |if fault is      |
                            |cleared.         |
                            -------------------
                                     |
                                     NO
                                     |
                            -------------------
                            |Check wiring for |
                            |phase to phase   |
                            |short or short to|
                            |earth.           |
                            -------------------
```

Chart 101

Printed in England

```
*******************************      ---------------------------------
*GREEN INDICATOR FAILS (3) TO *      |GROUND EQUIPMENT REQUIRED       |
*ILLUMINATE.                  *      |DESCRIPTION          PART NO.   |
*******************************      ---------------------------------
                                     |POWER SUPPLIES:                 |
                                     |200V, 3PH; 28V DC       -       |
                                     |CIRCUIT BREAKER                 |
                                     |SAFETY CLIPS.           -       |
                                     ---------------------------------

-------------------------------      ---------------------------------
|Operate fwd/aft tracking     |      |Renew indicator (3) filament    |
|switches (4/5) in each       |-YES-|- if still no indication,       |
|direction to prove power 'ON'|      |check continuity between pins   |
-------------------------------      |1D of TB M562 and 9A of TB      |
              |                      |M563 - if open-circuit,         |
              |                      |either contact D1/D2 in         |
              NO                     |master relay (8),or wiring      |
              |                      |is defective.                   |
              |                      ---------------------------------
              |
-------------------------------      ---------------------------------
|If no 28V dc at terminal 2 of|      |Check for 28V to earth at 2D    |
|CB (2) - renew CB.           |-YES-|of TB M562. If yes, master      |
-------------------------------      |control relay (8) or wiring     |
                                     |is defective.                   |
                                     ---------------------------------
                                                   |
                                                   NO
                                                   |
                                     ---------------------------------
                                     |Power 'ON' switch (3) or        |
                                     |wiring is defective.            |
                                     ---------------------------------
```

Chart 102

****
*SEAT MANUAL FWD/AFT MOVEMENT *
*UNSATISFACTORY.   *
****

Lift emergency crashlock release lever and check if seat moves fwd/aft at all.

-YES-

1. Check running surfaces of rails for parallelism in longitudinal and lateral planes.
2. Inspect rails for damage
3. Check side location roller adjustment.
4. Check mounting roller clearance.
5. Check for debris in drive rack or rails.

Adjust as necessary and re-test.

NO

R R Check crashlock pin has withdrawn from hole in outboard rail (inboard rail after SB25-076)

-YES-

Check that power drive disconnect has separated drive.

NO

NO

Check for broken or badly adjusted control cable or operating mechanism. Rectify and retest.

Chart 103

****
SEAT FAILS TO MOVE EITHER FWD
*OR AFT UNDER POWER.   *
****

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES 200V, 3PH;28V DC	-
CIRCUIT BREAKER SAFETY CLIPS	-

WARNING: DO NOT ALLOW THE CLUTCH TO SLIP UNNECESSARILY.

R

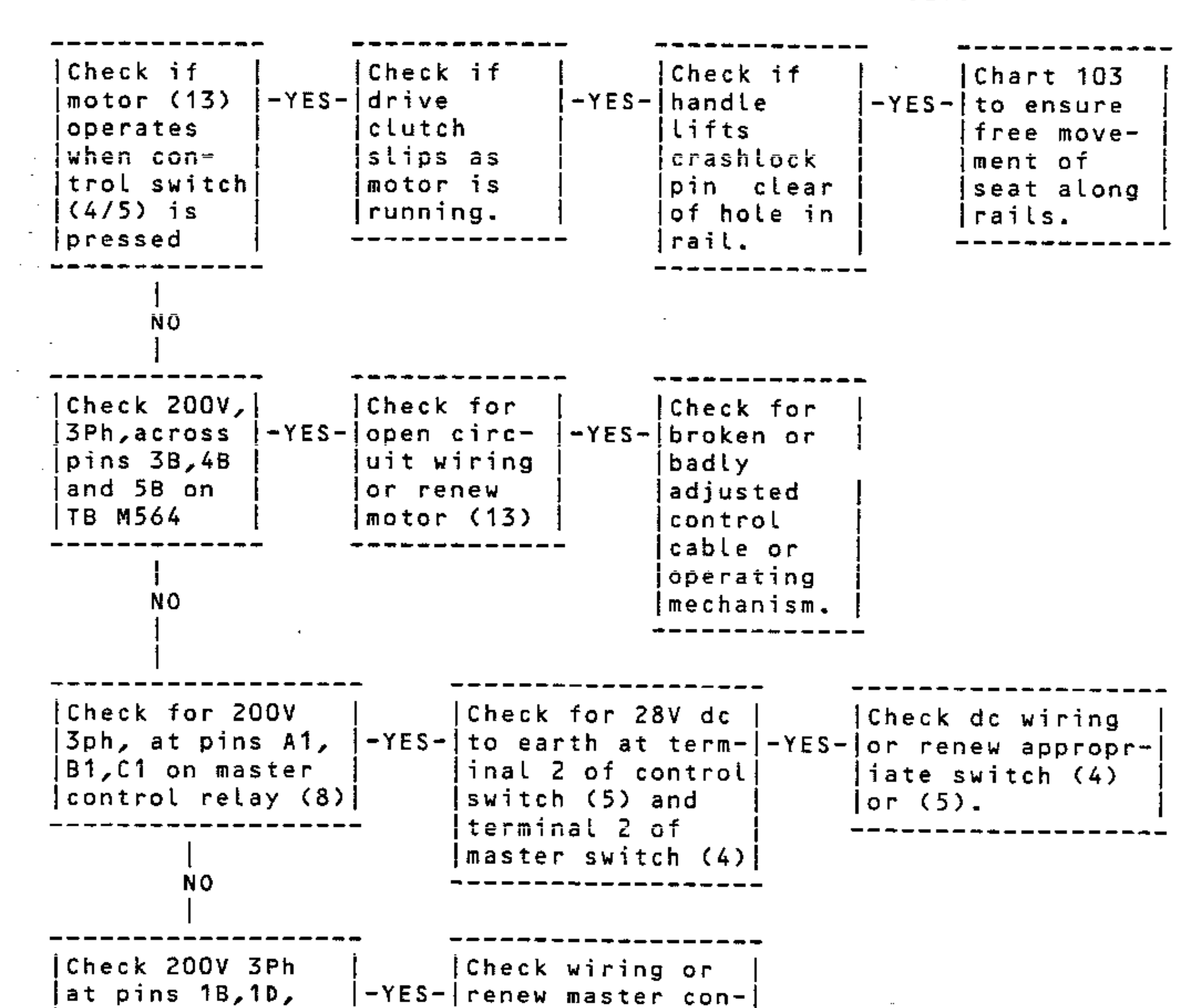


Chart 104 (Sheet 1 of 2)

NO

Check 200V 3Ph supply wiring or renew start control unit (23).

Chart 104 (Sheet 2 of 2)

****
*SEAT FAILS TO MOVE FWD OR *
*SEAT FAILS TO MOVE AFT. *
****

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V, 3PH;28V DC	-
CIRCUIT BREAKER SAFETY CLIPS.	-

Check 28V dc across pins X1/X2 of motor fwd control relay (9) or aft relay (10)
- YES → Check for open circuit wiring or renew relay (9) or (10).
- NO → Check for 28V dc to earth at pin X1 of relay (9) or (10).
  - YES → Check for EARTH polarity at pin 8 of seat limit fwd relay (15) or aft relay (16).
    - YES → Check for 28V dc across pin 3 and 7 of relay (15) or (16)
      - YES → Adjust switch/strikes or renew switch (19) or in the aft mode - renew proximity switch (20) or 3CM fwd 'Z' switch M518
      - NO → Check for open circuit wiring or renew relay (15) or (16).
    - NO → Check for open circuit wiring
  - NO → (continued)

Chart 105 (Sheet 1 of 2)

```
      |
-------------             -------------
|Check for  |             |Check wire  |
|28V dc at  |-YES-|link to     |
|pin D2 of  |             |relay (9)   |
|relay (10) |             |or (10) or, |
|or (9)     |             |renew relay |
|------------             |(10 or (9). |
      NO                  -------------
      |
-------------             -------------
|Check for  |             |Check for   |
|28V dc to  |-YES-|open cir-   |
|earth at   |             |cuit wiring |
|pin D of TB|             |to pin D2   |
|M563/6 (or |             |of relay    |
|pin A of TB|             |(10) or     |
|M564/16    |             |relay (9)   |
-------------             -------------
      |
      NO
      |
-------------
|Check for  |
|open cir-  |
|cuit wiring|
|or renew   |
|ganged     |
|switches   |
|(4/5) as   |
|necessary. |
-------------
```

Chart 105 (Sheet 2 of 2)

```
*******************************
*LIMIT SWITCH (19) OR (20)    *
*FAILS TO SWITCH OFF FWD/AFT  *
*MOTOR (13).                  *
*******************************
```

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V, 3PH;28V DC	-
CIRCUIT BREAKER SAFETY CLIPS	-

FORWARD LIMIT SWITCH

```
------------------       ------------------         ------------------
|Fwd limit switch |      |Remove seat limit|-YES-|Renew relay (15).|
|(19) fails to    |-YES-|control relay(15)|      ------------------
|switch off motor |      |-check for 28V   |
|(13)- with seat  |      |dc across relay  |
|against switch   |      |base pins 3 and 7|
|(19) striker and |      ------------------
|control switch   |              |
|4/5"OFF" -check  |              NO
|for earth potent-|              |
|ial at pin 4 of  |              |
|TB M571.         |              |
------------------               |
        |                        |
        NO                       |
        |                        |
------------------       ------------------
|Adjust striker or|      |Possible open    |
|renew microswitch|      |circuit-refer    |
|(19) as appro-   |      |to Wiring Diagram|
|priate.          |      ------------------
------------------
```

Chart 106 (Sheet 1 of 2)

AFT LIMIT SWITCH

```
-------------------         -------------------      -------------------
|Aft limit proxim-|         |Remove seat limit|-YES-|Renew relay (16).|
|ity switch (20)  |         |control relay    |      -------------------
|fails to switch. |-YES-|(16) - check for |
|off motor (13) - |         |28V dc across    |
|with seat against|         |relay base pins  |
|1st supernumerary|         |3 and 7.         |
|seat interupter  |         -------------------
|strut and control|                  |
|switch 4/5 "OFF"-|                  NO
|check for earth  |
|potential at pin |         -------------------
|5 of TB M599.    |         |Possible open-   |
-------------------         |circuit - refer  |
         |                  |to Wiring Diagram|
         NO                 -------------------
         |
         |
         |
-------------------         -------------------
|Check for 28V dc |-YES-|Renew proximity  |
|to earth at pin  |         |limit switch (20)|
|of TB M571.      |         -------------------
-------------------
         |
         NO
         |
-------------------
|Possible open    |
|circuit - refer  |
|to Wiring Diagram|
-------------------
```

Chart 106 (Sheet 2 of 2)

SEAT FAILS TO MOVE UP OR DOWN UNDER POWER

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V, 3PH;28V DC.	-
CIRCUIT BREAKER SAFETY CLIPS.	-

WARNING: DO NOT ALLOW CLUTCH TO SLIP UNNECESSARILY.

Operate switches on side of console and check if motor operates.

-YES- If motor runs, but seat does not move up or down -
1. Check drive mechanism to ensure nothing has seized or broken. Check telescopic tubes for evidence of damage causing seizure
2. Renew motor (14) to ensure satisfactory motor output clutch setting.

Retest after each check.

NO

Check 200V,3PH,across pins 6B,7B,8B of TB M564.

-YES- Check for open circuit wiring or renew motor (14).

NO

Check for 28V dc to earth at terminal 2 of control switch (7) and terminal 2 of master switch (6).

NO

Check for open circuit wiring or renew appropriate switch.

Chart 107

```
********************************
*SEAT MOVES DOWN BUT NOT UP OR*
*UP BUT NOT DOWN              *
********************************
```

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES:	
200V, 3PH;28V DC	-
MULTIMETER	
CIRCUIT BREAKER	
SAFETY CLIPS	-

```
--------------------                 ------------------            ------------------
|With control      |      |Refit relay (11)  |      |Renew up relay   |
|switch (6/7) 'UP' |-YES-|(or 12) - check   |-YES-|(11) or down     |
|(or 'DOWN')-remove|      |200V ac across    |      |relay (12)       |
|motor control     |      |pins B6/B7/B8 of  |      ------------------
|relay (11)(or 12) |      |TB M564           |
|-check 28V dc     |      ------------------
|across relay base |
|pins X1/X2        |
--------------------
         |
         NO
         |
--------------------      ------------------      ------------------
|Check 28V dc to   |      |Check earth       |      |Adjust striker/  |
|earth at pin X1   |-YES-|potential at pin  |-YES-|switch or renew  |
|of up relay (11)  |      |5 (or 3) of TB    |      |switch (21) or   |
|(or down relay 12)|      |M571              |      |(22)             |
--------------------      ------------------      ------------------
         |                         |
         |                         NO
         |                         |
         |                ------------------
         |                |Check for open-   |
         |                |circuit wiring or|
         NO               |renew limit relay|
         |                |relay (17) or     |
         |                |(18)              |
         |                ------------------
         |
```

Chart 108 (Sheet 1 of 2)

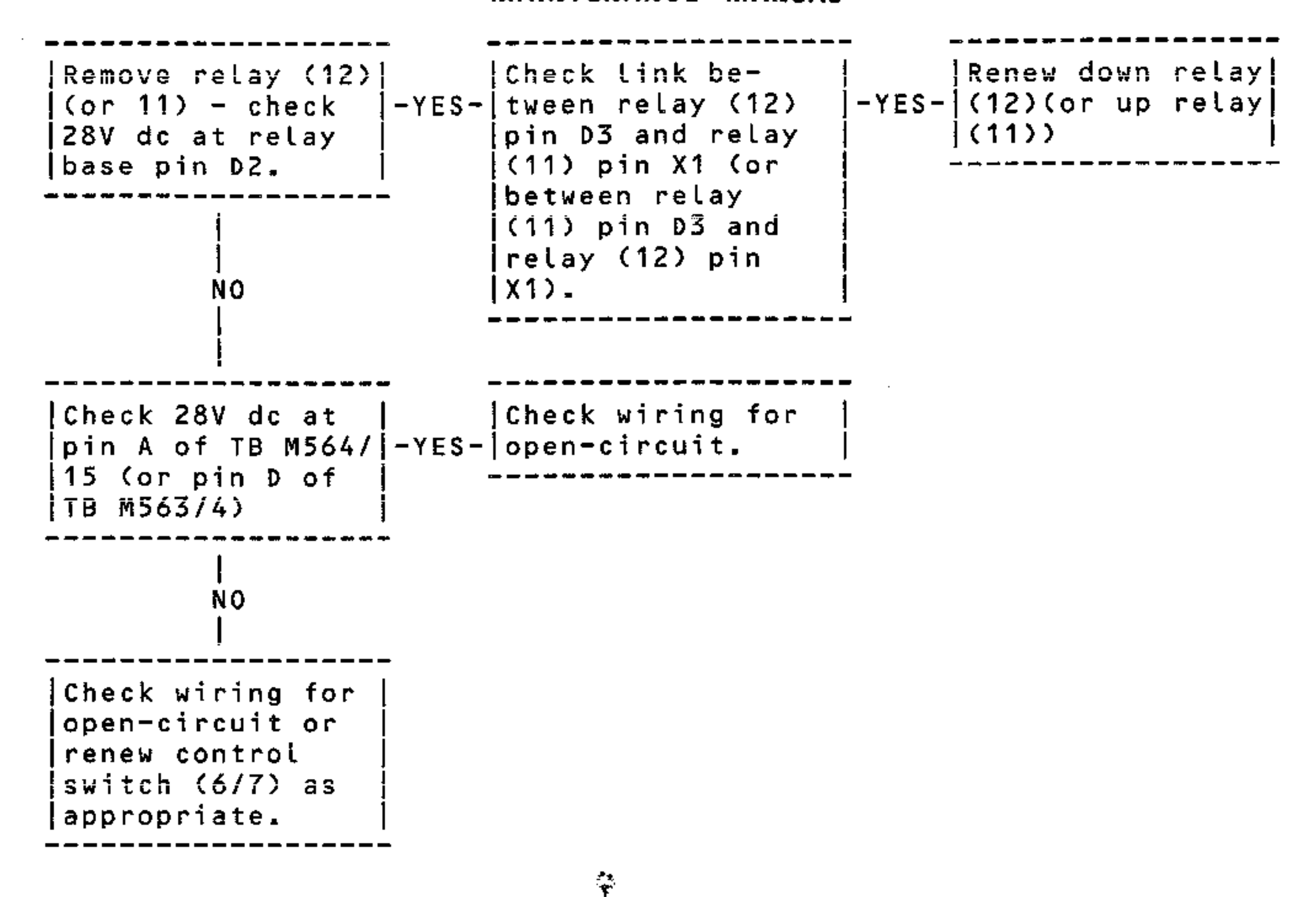


Chart 108 (Sheet 2 of 2)

Printed in England

```
*******************************
*LIMIT SWITCHES (21/22) FAIL  *
*TO SWITCH OFF UP/DOWN MOTOR  *
*(14).                        *
*******************************
```

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V, 3PH; 28V DC CIRCUIT BREAKER SAFETY CLIPS	-

```
-------------------------------      -------------------------------
|With seat fully up (or down),|      |Remove limit control up relay|
|micro-switch (21)(or 22) de- |-YES-|(17)(or down relay(18))- if  |
|pressed and control switch   |      |28V dc across relay base pins|
|(6/7)'OFF'-check earth poten-|      |3 and 7 - renew relay (17) or|
|tial at pin 5 (or 3) of TB571|      |(18).                        |
-------------------------------      -------------------------------
              |                                    |
              NO                                   NO
              |                                    |
-------------------------------      -------------------------------
|Adjust striker or renew limit|      |Check wiring for open circuit|
|switch (21) or (22).         |      -------------------------------
-------------------------------
```

Chart 109

```
*******************************
*SEAT PAN FAILS TO ADJUST IN  *
*ANGLE OF TILT.               *
*******************************

-------------------------------     -------------------------------
|Lift seat pan tilt mechanism |     |Check lever/cable for damage |
|release lever and check if   |-YES-|rectify/renew as necessary - |
|lever movement is obstructed |     |retest.                      |
===============================     -------------------------------
               |
               NO
               |
-------------------------------     -------------------------------
|Disconnect cable from adjust-|     |Ensure that adequate packing |
|er strut and depress seat pan|-YES-|is fitted under cable seating|
|to check if movement is      |     |to ensure spigot withdrawal  |
|unobstructed.                |     |from strut lock nut when     |
-------------------------------     |handle is fully lifted.      |
               |                    |Reconnect cable and retest.  |
               NO                   -------------------------------
               |
-------------------------------     -------------------------------
|Disconnect upper end of seat |     |Check all bearings in seat   |
|pan adjuster strut from seat |-YES-|pan linkage for seizure.     |
|pan support linkage and check|     |Renew as necessary, reconnect|
|if movement of pan is        |     |linkage and retest.          |
|obstructed.                  |     -------------------------------
-------------------------------
```

Chart 110

SEAT BACK FAILS TO ADJUST IN ANGLE OF TILT

Check		Action
Lift seat back tilt mechanism release lever and check if lever movement is obstructed.	-YES-	Check lever/cable for damage rectify/renew as necessary - retest.
NO		
Disconnect cable from adjuster strut and move seat back to check if movement is unobstructed.	-YES-	Ensure that adequate packing is fitted under cable seating to ensure spigot withdrawal from strut lock nut when handle is fully lifted. Reconnect cable and retest.
NO		
Disconnect upper end of seat back adjuster strut from seat back support linkage and check if movement is obstructed	-YES-	Check all bearings in seat back linkage for seizure. Renew as necessary, reconnect linkage and retest.

Chart 111

ITEM NO. AND DESCRIPTION	ACCESS PANEL	PANEL/ ZONE	EQUIP. IDENT.	POSITION	MANUAL REF. MAINT. TOPIC	WIRING DIAGRAM
(1) Circuit breaker 200V 3PH	-	14-215	M253	B3, 3CM Racking	24-50-00 R/I	25-11-11
(2) Circuit breaker 28V dc	-	15-215	M256	G6, 3CM Racking	24-50-00 R/I	
(3) Power ON switch	-	14-211-2	M501	Seat console	25-11-11	
(4) Master switch (FWD/AFT)	-	14-211-2	M507	Seat console	25-11-11	
(5) Control switch (FWD/AFT)	-	14-211-2	M509	Seat console	25-11-11	
(6) Master switch (UP/ DOWN)	-	14-211-2	M508	Seat console	25-11-11	
(7) Control switch (UP/ DOWN)	-	14-211-2	M510	Seat console	25-11-11	
(8) Master control relay	-	14-211-1	M530	Seat base panel	25-11-11	
MOTOR CONTROL						
(9) FWD relay	-	14-211-1	M531	Seat base panel	25-11-11	
(10) AFT relay	-	14-211-1	M532	Seat base panel	25-11-11	
(11) UP relay	-	14-211-1	M533	Seat base panel	25-11-11	
(12) DOWN relay	-	14-211-1	M534	Seat base panel	25-11-11	
SEAT TRAVEL MOTORS						
(13) FWD/AFT	-	14-211	M553	Seat base	25-11-11	
(14) UP/DOWN	-	14-211	M554	Seat base	25-11-11	
SEAT LIMIT CONTROL						
(15) FWD relay	-	14-211-1	M543	Seat base panel	25-11-11	
(16) AFT relay	-	14-211-1	M544	Seat base panel	25-11-11	
(17) UP relay	-	14-211-1	M545	Seat base panel	25-11-11	

ITEM NO. AND DESCRIPTION	ACCESS PANEL	PANEL/ ZONE	EQUIP. IDENT.	POSITION	MANUAL REF. MAINT. TOPIC	WIRING DIAGRAM
(18) DOWN relay	-	14-211-1	M546	Seat base panel	25-11-11	
(19) Microswitch-(FWD)	-	14-211	M517	Seat base	25-11-11	
(20) Microswitch-(AFT)	-	14-211	M523	Seat base	25-11-11	
(21) Microswitch-(UP)	-	14-211	M524	Seat base	25-11-11	
(22) Microswitch-(DOWN)	-	14-211	M525	Seat base	25-11-11	
(23) Start control unit	-	14-211	M592	Seat base	25-11-11	
(24) Diodes	-	14-211-1	M595-M598	Seat base panel	25-11-11	

Component Identification
Table 101

CAPTAIN'S SEAT ASSEMBLY - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

CAUTION: ENSURE THAT PROTRUSIONS UNDER THE SEAT BASE ARE NOT DAMAGED DURING REMOVAL AND INSTALLATION.

ENSURE THAT SNAGS OR PULLS DO NOT OCCUR ON ALL CABLES ATTACHED TO THE SEAT.

1. General

The seat is mounted on rails at the left side of the flight compartment, its motorized base travels along the rails on four roller assemblies fitted at the corners of the base.

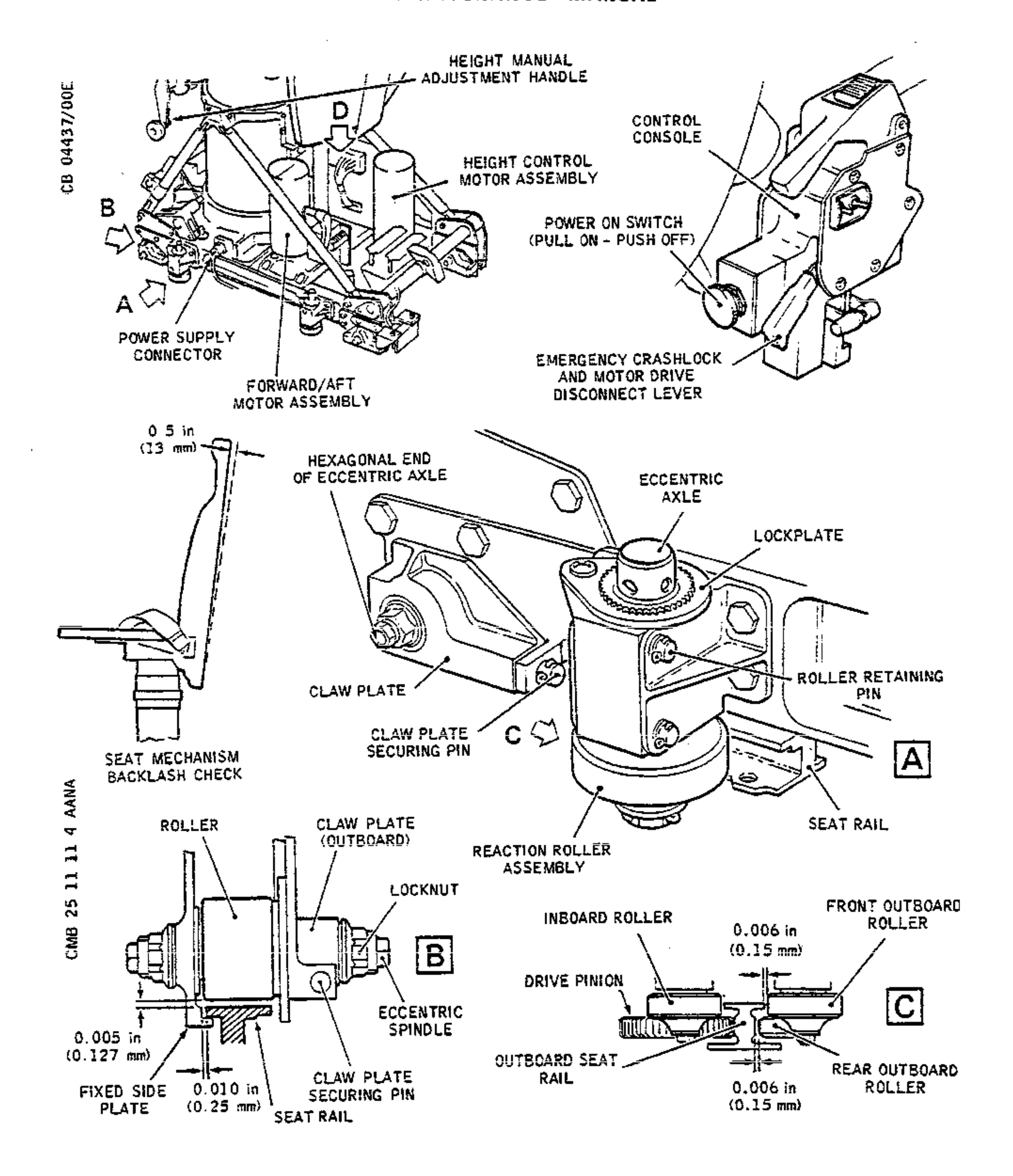
Claw plates secured to the base at each side of the rollers fit under the rail flanges to retain the seat on the rails. Two horizontal reaction rollers are fitted to the outboard side of the base; the rollers operate against the outside of the outboard rail in opposition to a third horizontal roller fitted to the base inboard of the rail, and to the drive pinion operating in the rack of the outboard rail.

This topic describes the removal and installation procedures
R for the seat and its electrical equipment and also the
R adjustments that are necessary when installing the seat.

2. Captain's Seat Assembly

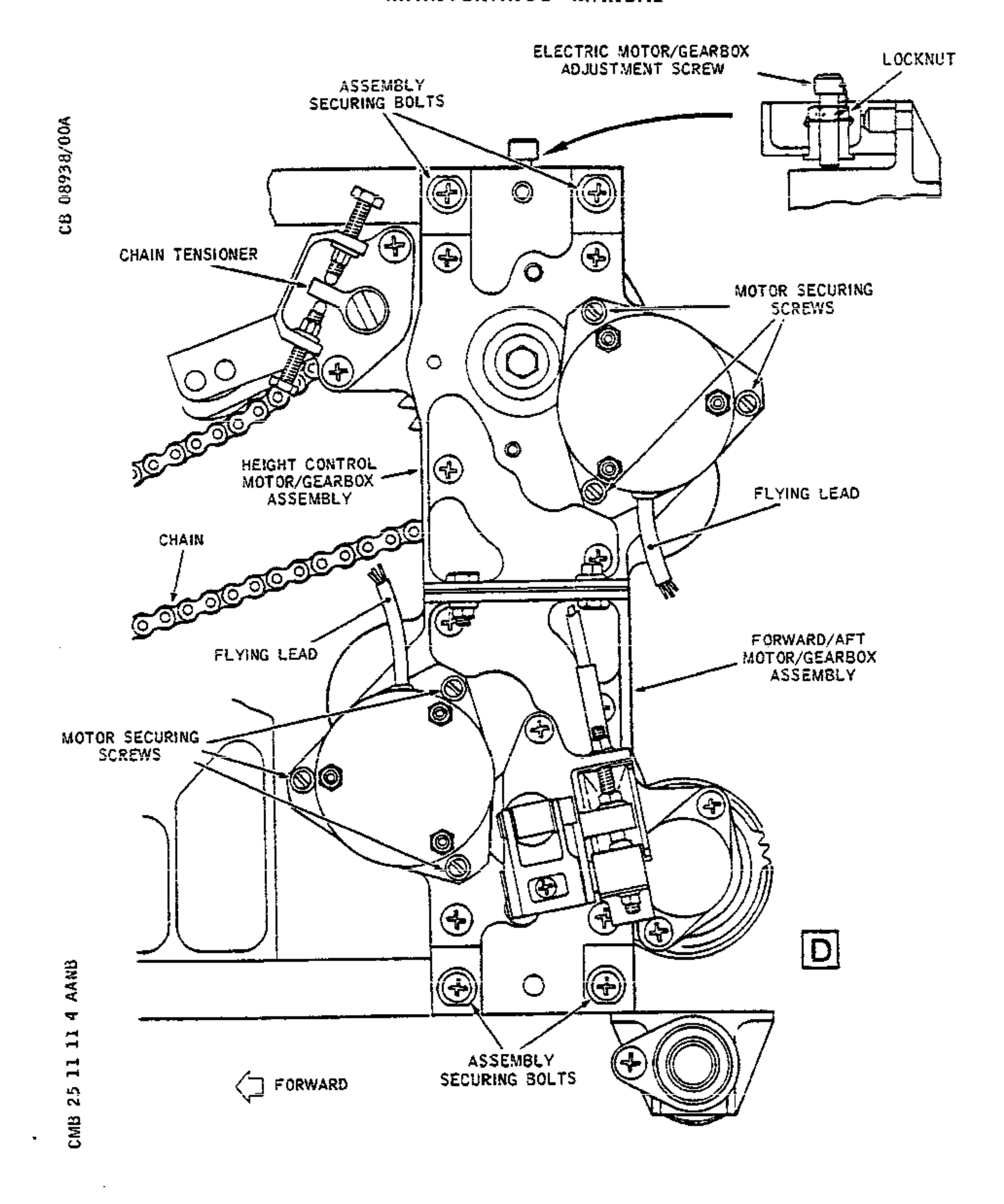
A. Equipment and Materials

DESCRIPTION	PART NO.
Seat Stand	E925007000
Circuit breaker safety clips	-
Torque screwdriver 0-15 lbf in (0-0.170 mdaN) range	-
Torque spanner 0-40 lbf in (0-0.452 mdaN) range	-
Non-corrodible wire 0.28 in (0.71 mm) dia	-



Captains Seat - Installation (Sheet 1 of 2)
Figure 401

R



R

Captains Seat - Installation (Sheet 2 of 2)
Figure 401

B. Prepare to Remove Seat

(1) Trip the seat circuit breakers to electrically isolate the seat; fit the safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1ST PLT SEAT SUP	14-215	M253	A 3
1ST PLT SEAT CONT	15-215	M256	G 6

(2) Disconnect the power supply connection to the seat
R (Ref. Fig. 401).

(3) Remove the first supernumerary seat (Ref.25-11-41, Removal/Installation).

C. Remove Seat (Ref. Fig. 401)

(1) Lift the emergency crashlock and motor drive disconnect lever and push the seat forward to contact the forward stop.

(2) Move the third crew members seat into the leg recess of the third crew members station (Ref. 25-11-31, Description/Operation).

(3) Remove the aft end stop on the Captain's seat outboard rail.

(4) Remove the interrupter strut from the outboard seat rail:

(a) Remove the split pins and pins securing the strut to the shoes.

(b) Lift the strut from the two shoes.

(c) Slide the shoes rearward and remove them from the seat rails.

(5) Lift the emergency crashlock and motor drive disconnect lever on the Captain's seat; retain the lever in the raised position.

(6) Remove the inter-seat strut from the inboard seat

rail:

(a) Move the seat aft until the strut is positioned over the rail cut-outs.

NOTE: To allow the inter-seat strut to move rearwards, press the foot pedal of the third crew members trolley.

(b) Lift the strut to disengage the T-piece at the forward end of the strut from the rear of the seat; remove the strut.

(7) Position the Captain's seat at the aft end of the rails, adjacent the seat rail top flange cut-outs.

(8) Place the seat on its stand.

D. Prepare to Install (Ref. Fig. 401)

NOTE: Adjustment is not required if a seat is re-installed without work being carried out on the rollers or claws.

(1) Ensure the emergency crashlock and motor drive disconnect lever is tied in the raised position, to
R retract the crashlock pin.

(2) On each of the claw plate assemblies, loosen the locknuts and adjust the eccentric axles to raise the rollers to their top position (Ref. Detail B).

(3) Remove and discard the locking wire from the motor/gearbox assembly adjustment screw and locknut. Slacken the locknut and back off the adjustment screw to permit the motor/gearbox assemblies to be moved inboard (Ref. Section AA).

NOTE: The two gearboxes are bolted together and will therefore move as one unit.

(4) Slacken the four bolts securing the motor/gearbox assemblies and move the assemblies to the most inboard position. Pinch the bolts to hold the assemblies inboard.

(5) Remove the lockplates from the reaction roller assemblies and turn the eccentric axles to adjust the side rollers out of engagement (Ref. Detail A).

(6) Remove the seat from its stand.

(7) Remove the protective guard cover from the drive pinion.

E. Install Seat (Ref. Fig. 401)

(1) Position the seat at the rear end of its mounting rails over the cut-outs in the rail upper flanges.

(2) Lower the seat onto the rails, ensuring the drive pinion teeth engage with the rail rack.

(3) Move the seat forward to engage the claws with the rail top flange.

(4) Set the seat clearances:

Before SB 25-025 For A/C 003-008

(a) Wedge the retention claws independently at the two forward and the two rear axle positions, to contact the rail and adjust the eccentric axle to lightly grip a 0.005 in (0.127 mm) feeler gauge between the roller and the top face of the rail. Tighten the axle nuts at the completion of each setting.

(b) Move the seat along its rails and repeat operation (a) as necessary to obtain the required 0.005 in (0.127 mm) clearance between the claw plate and rail flange at its tightest location through the full travel of the seat.

(c) Lower the rear inboard roller on its eccentric axle to just contact the rail at its highest point.

(d) Torque-tighten all axle locknuts to between 200 and 215 lbf in (2.26 and 2.429 mdaN).

After SB 25-025 For A/C 001-007,

(e) Wedge the retention claws independently at the two rear and the one forward outboard axle positions to contact the rail and adjust the eccentric axle to lightly grip a 0.005in (0.127mm) feeler gauge between the roller and the top face of the rail. Tighten the axle nuts at the completion of each setting.

(f) Move the seat along its rails. Repeat operation (e) as necessary to obtain the required 0.005 in (0.127 mm) clearance between the claw plate and rail flange through the full travel of the seat.

(g) Lower the forward inboard roller on its eccentric axle to just contact the rail at its highest point.

(h) Torque tighten the axle nuts on the claw side to between 200 and 215 lbf in (2.26 and 2.429 mdaN) and on the sideplate side to between 60 and 70 lbf in (0.678 and 0.791 mdaN).

(5) Insert a 0.010 in (0.254 mm) shim between the vertical faces of the inboard claws and the inboard face of the outboard rail top flange (Ref. Detail B).

(6) With the shim inserted, loosen the motor/gearbox assembly securing bolts and move the assembly outboard, using the adjusting screw, until the idler pinion is brought into mesh with the rack. Adjust until the backlash between the pinion and the rack is just apparent. Tighten the adjusting screw lock-nut and torque-load the nut to between 25 and 30 lbf in (0.282 and 0.339 mdaN) and wire-lock (Ref. Section AA).

(7) Check the tension on the height control drive chain and adjust if necessary using the chain tensioner. The required tension is measured midway between the drive sprockets and should be a maximum deflection of 0.25 in (6.35 mm). Torque-tighten the chain tensioner nuts to between 25 and 30 lbf in (0.282 and 0.339 mdaN).

(8) Tighten the motor/gearbox assembly securing bolts and torque-load them as follows:

(a) The forward inboard bolt (bolt into insert) to between 40 and 45 lbf in (0.452 and 0.508 mdaN).

(b) The remaining three bolts to between 35 and 40 lbf in (0.395 and 0.452 mdaN).

(9) Adjust the forward inboard roller until it just contacts the rail; lock the eccentric axle.

(10) Push the seat laterally outboard to the limit imposed by the claw plates.

(11) Place a 0.006 in (0.152 mm) feeler gauge between the outboard rollers and the rail. Adjust the eccentric axle until the feeler gauge is lightly gripped; lock the eccentric axle using lockplates.

(12) Remove the feeler gauge and shims.

(13) Move the seat along the rails to ensure free movement over the complete travel. Adjust the eccentric axles by the minimum amount necessary to achieve free movement.

(14) Remove the seat and replace the guard cover over the drive pinion.

(15) Replace the seat.

(16) Move the seat forward to engage the claws with the rail top flange to enable the inter-seat strut to be fitted.

(17) Install the inter-seat strut on the Captain's seat inboard rail, aft of the seats:

(a) Position the Captain's seat at the aft end of the rails, adjacent the rail top flange cut-outs.

(b) Lower the strut, engaging the T-piece at the forward end of the strut into the jaws at the rear of the seat, at the same time ensuring that the strut passes through the rail cut-outs.

(c) Move the seat forward to engage the strut with the rail top flange.

(18) Move the seat to the forward stop position.

(19) Install the interrupter strut on the Captain's seat outboard rail:

(a) Engage the strut shoes on the rail, ensuring that the target on the front shoe is foremost.

(b) Refit the outboard rail rear end stop.

(c) Locate the strut on the two shoes; secure it with pins and split pins.

(20) Untie the emergency crashlock and motor drive

disconnect lever.

(21) Functionally test the emergency crashlock and motor drive disconnect lever.

(22) With the seat facing forward raise the seat fully; check that the total backlash of the seat mechanism measured at the top of the seat back, does not exceed 0.50 in (12.7 mm).

(23) Install the first supernumerary seat (Ref.25-11-41, Removal/Installation).

(24) Hold up the crashlock pin release lever on the first supernumerary seat and slide the seat aft to its rear stop position.

(25) Ensure that all mating surfaces are clean and undamaged; connect the electrical power supply connectors to the receptacles on the seat.

(26) Remove the safety clips and reset the circuit breakers previously tripped.

(27) Functionally test the first supernumerary seat (Ref. 25-11-41, Adjustment/Test).

(28) Functionally test the Captain's seat (Ref. 25-11-11, Adjustment/Test).

3. Forward/Aft (M553) and Height Control (M554) Motors (Ref. Fig.401 and 402)

NOTE: The removal and installation procedures for the two Motors are identical.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque screwdriver 0-15 lbf in (0-0.169 mdaN) range	-
Crimping tool	-
Tool, contact, insertion/ extraction	-
Contacts	-
Celloseal QH (jointing compound) (Ref. 20-30-00, No.370)	-

DESCRIPTION	PART NO.
Cleaning solvent, trichlorethylene (Ref. 20-30-00, No.469)	-
Cleaning solvent, trichloroethane (Ref. 20-30-00, No.462)	-
Small bristle brush	-
Kimwipe tissues	-

B. Prepare to Remove Motor

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1st PILOT SEAT SUP	14-215	M253	A3
1st PILOT SEAT CONT	15-215	M256	G6

(2) Using the seat height manual adjustment handle, raise the level of the seat to give maximum working space at the seat base.

(3) Operate the emergency crashlock and motor drive disconnect lever to move the seat forward or aft to give maximum working space at the seat base. base.

(4) Slacken the quick-release fasteners and remove the seat base covers.

C. Removal

(1) At the seat base, inboard, locate the module block (M564) on the relay panel assembly.

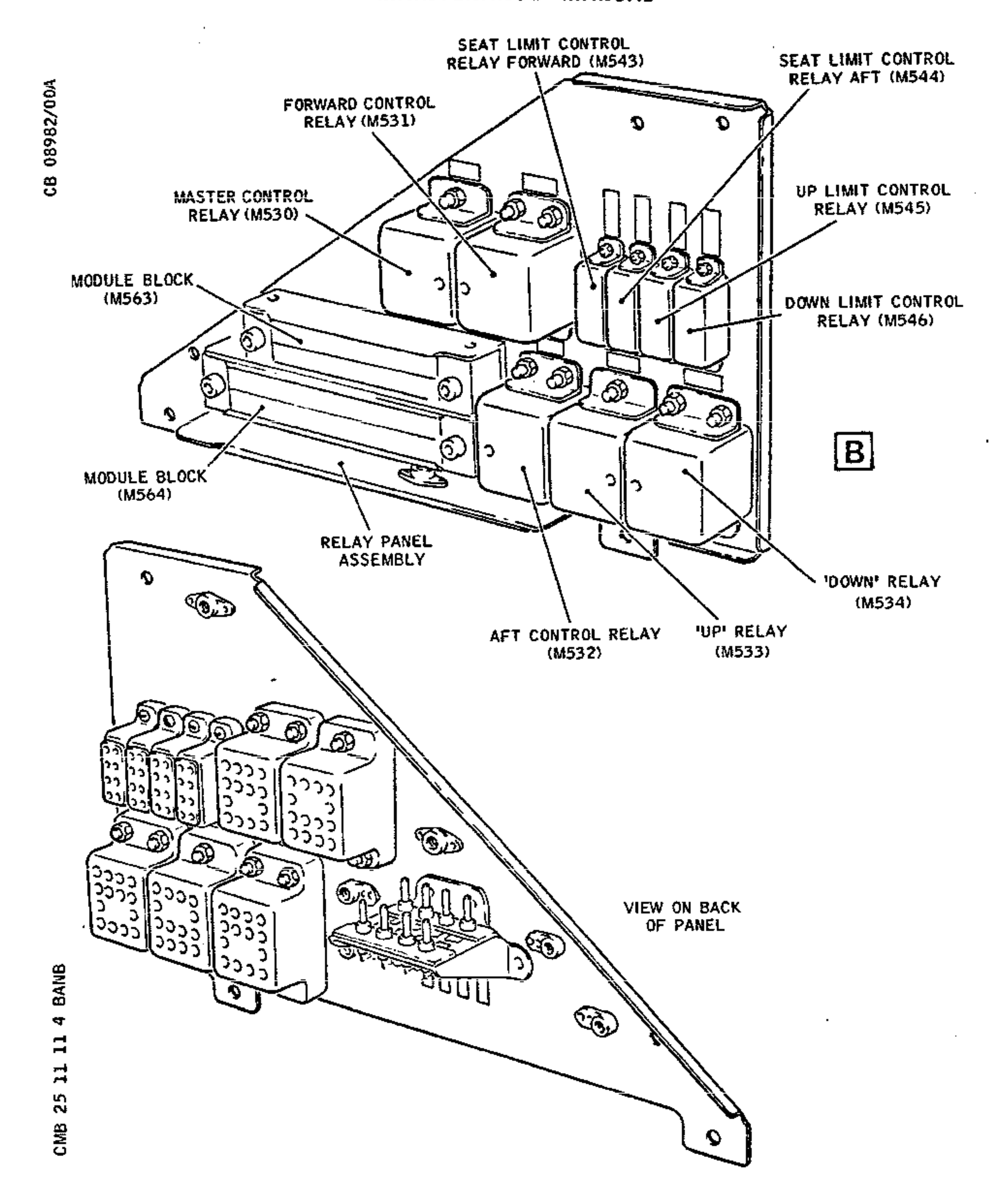
(2) Using the contact extraction tool (white end), disconnect the motor flying lead from the module block (M564) (Ref. applicable wiring diagram).

CB 08983 / 00A

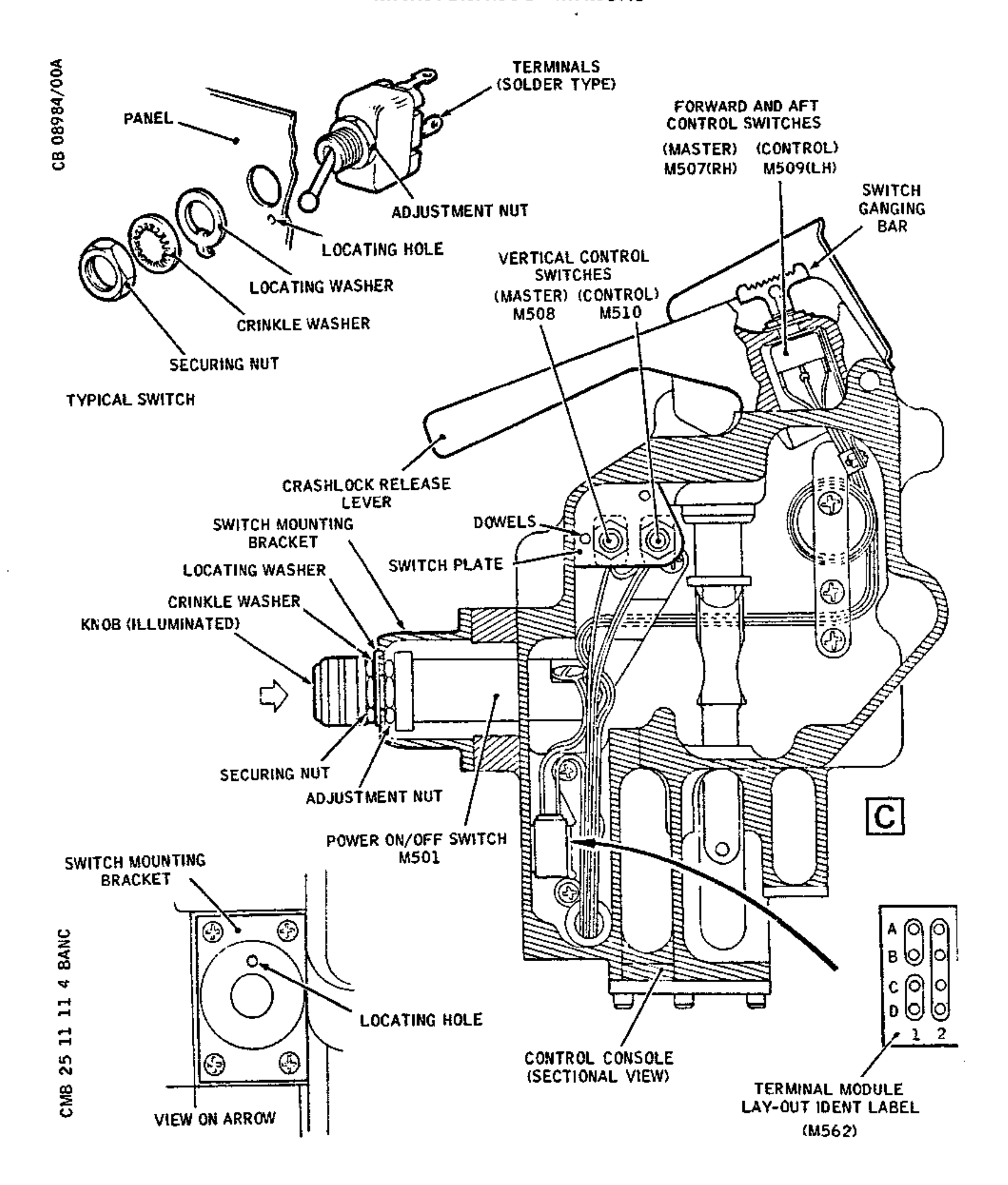
CMB 25 11 11 4 BANA

Captains Seat - Electrical Installation
(Sheet 1 of 3)
Figure 402

R



Captains Seat - Electrical Installation
(Sheet 2 of 3)
Figure 402



Captains Seat - Electrical Installation
(Sheet 3 of 3)
Figure 402

R (3) Remove the motor flying lead from the loom, loosening
R or removing securing clips as necessary.

R (4) Remove the screws and plain washers securing the
R motor to the gearbox; remove the motor and blank-off
R the gearbox input drive.

R D. Preparation of Replacement Motor

R (1) Check the Part No. and examine the replacement motor
R for cleanliness and freedom from damage.

R (2) Clean the motor mounting flange, using a 'Kimwipe'
R tissue moistened with cleaning solvent (Ref.20-30-00,
R No.462). Wipe dry, using a clean 'Kimwipe' tissue.

R CAUTION: WHEN USING TRICHLORETHYLENE, AVOID EXCESS
R CONTACT WITH PAINTED COMPONENTS, RUBBER
R AND NON-METALLIC MATERIALS.

R (3) Clean the motor mounting area of the gearbox:

R (a) Remove all traces of jointing compound using
R a 'Kimwipe' tissue moistened with cleaning
R solvent (Ref.20-30-00, No.469).

R (b) Wipe dry, using a clean 'Kimwipe' tissue.

R NOTE: Ensure that foreign matter is prevented
R from entering the gearbox input drive.

R E. Installation

R (1) Comply with the electrical safety precautions.

R (2) Refit the motor to the gearbox as follows:-

R (a) Brush an even coating of jointing compound
R (Ref. 20-30-00, No.370) on the mating surfaces
R of the motor and gearbox, sufficient to ensure
R a spew at the edges of the joint after assembly.

R (b) Remove the blank from the gearbox input drive,
R and examine the drive to ensure that no foreign
R matter is present.

R (c) Wet assemble the motor and gearbox, avoiding
R excessive movement at the joint faces during
R assembly. Engage the motor drive pinion with
R the gearbox input drive.

Printed in England

(d) Secure the motor to the gearbox using the three securing screws and washers.

(e) Torque-tighten each screw to 14 lbf in (0.158 mdaN).

(f) Remove surplus jointing compound from the joint using a clean 'Kimwipe' tissue.

NOTE: Ensure that the tissue is not contaminated with moisture or cleaning solvent.

(3) Route the motor flying lead in the loom, refit and tighten the loom securing clips.

(4) Prepare the flying lead ends in accordance with the Wiring Diagram Manual, 20-42-18, Terminal Junction Boxes.

(5) Connect the electrical cables to the module block (M564), ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

NOTE: Use the contact insertion tool (yellow end) for this purpose.

F. Test

(1) Remove all tools and equipment from the vicinity of the seat. Examine the seat base area, including the seat rails, and remove all foreign matter.

(2) Remove the safety clips and close the circuit breakers (Ref. para.B(1)).

(3) Carry out a Functional Test - Power Controls (Ref. 25-11-11, Adjustment/Test).

G. Conclusion

(1) Refit the seat base covers and secure them with the quick-release fasteners.

(2) Remove all tools and equipment from the aircraft.

4. Start Control Unit (M592) (Ref. Fig. 403)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-

B. Prepare to Remove Start Control Unit

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1ST PLT SEAT SUP	14-215	M253	A3
1ST PLT SEAT CONT	15-215	M256	G6

C. Removal

(1) Remove the shelf cover and locate the start control unit at shelf 18-215.

(2) Disconnect the bayonet-type electrical connector from the top of the start control unit.

(3) Remove the securing screws and remove the start control unit from the mounting.

D. Preparation of Replacement Start Control Unit.

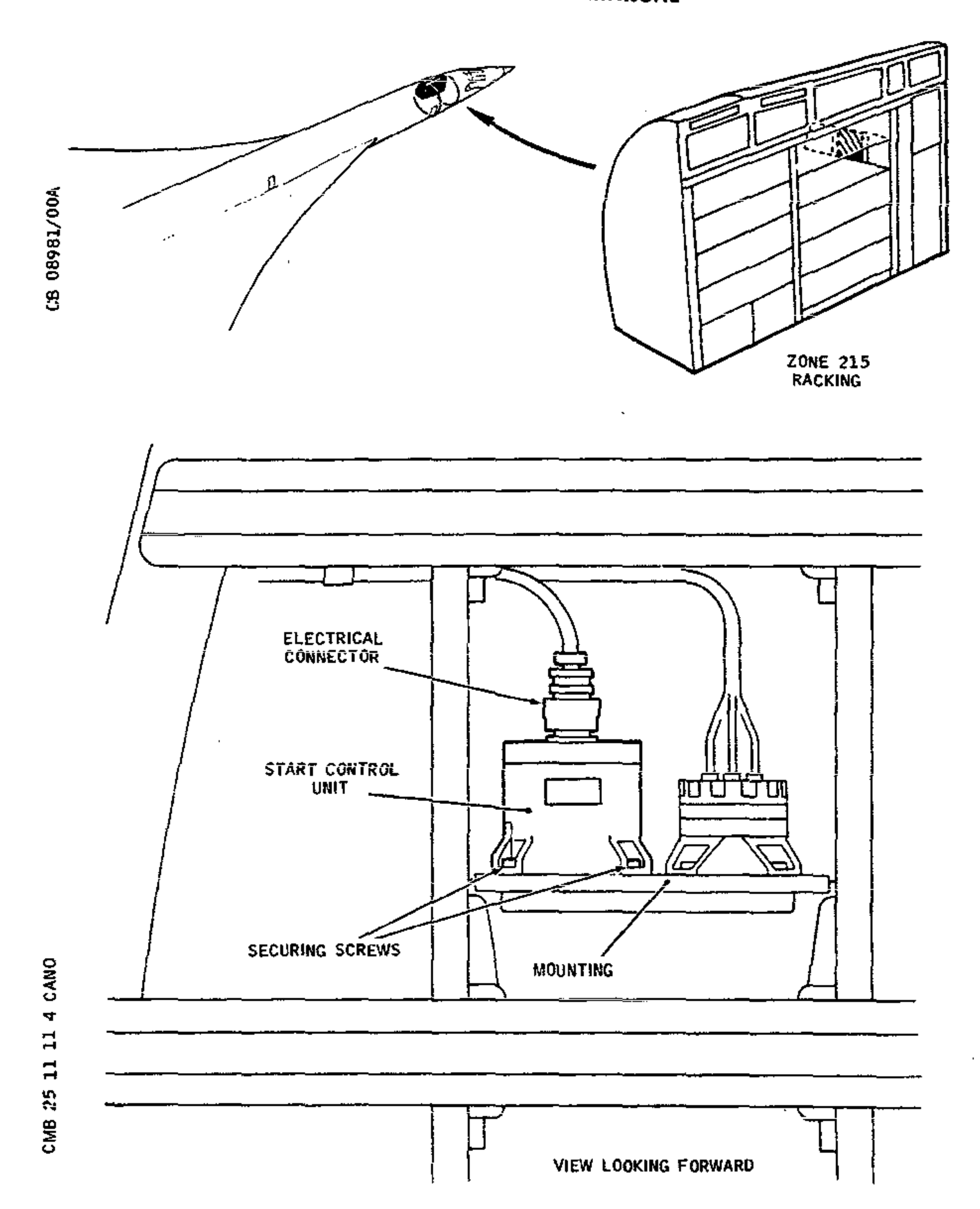
(1) Check the Part No. and examine the replacement start control unit for cleanliness and freedom from damage.

(2) Remove the blanking cap from the electrical connector.

E. Installation

(1) Comply with the electrical safety precautions.

(2) Position the start control unit in panel 18-215 and secure it with the four securing screws. Tighten each securing screw to a nominal torque.



R

Start Control Unit
Figure 403

(3) Remove the blank from the electrical connector.

(4) Connect the electrical connector to the start control unit, ensuring that the mating surfaces are clean and undamaged.

F. Test

(1) Remove the safety clips and close the circuit breakers (Ref. para.B(1)).

(2) Carry out a functional test-power controls (Ref. 25-11-11, Adjustment/Test).

G. Conclusion

(1) Refit the shelf cover to shelf 18-215 and secure.

(2) Remove all tools and equipment from the aircraft.

5. Relay (Ref. Fig. 402)

NOTE: The removal and installation procedure for the Master Control (M530), Forward Control (M531), Aft Control (M532), Up Control (M533) and Down Control (M534) relays is identical.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque spanner 0-10 lbf in (0-0.113 mdaN) range	-

B. Prepare to Remove Relay

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1ST PILOT SEAT SUP	14-215	M253	A3

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1ST PILOT SEAT CONT	15-215	M256	G6

(2) Slacken the quick-release fasteners and remove the seat base inboard cover.

C. Removal

(1) Locate the appropriate relay on the relay panel assembly (14-211-1), at the inboard side of the seat base.

(2) Remove the nuts and washers securing the relay.

(3) Unplug the relay from the relay socket base and remove.

D. Preparation of Replacement Relay

(1) Check the Part No. and examine the replacement relay for cleanliness and freedom from damage.

(2) Ensure that the silicone gasket is correctly fitted.

E. Installation

(1) Comply with the electrical safety precautions.

(2) Connect the relay to the relay socket base, ensuring that the mating surfaces are clean and undamaged.

(3) Fit a washer and nut on the three studs and torque-tighten each nut to 4 lbf in. (0.045 mdaN).

F. Test

(1) Remove the safety clips and close the circuit breakers (Ref. para.B(1)).

(2) Carry out a Functional Test - Power Controls (Ref. 25-11-11, Adjustment/Test).

G. Conclusion

(1) Refit the seat base inboard cover and secure it with

the quick-release fasteners.

(2) Remove all tools and equipment from the aircraft.

6. Relay (Ref. Fig. 402)

NOTE: The removal and installation procedure for the Seat Limit Control Forward (M543), the Seat Limit Control Aft (M544), the Up Limit Control (M545) and the Down Limit Control (M546) relays is identical.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breakers safety clips	-

B. Prepare to Remove Relay

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1ST PILOT SEAT SUP	14-215	M253	A3
1ST PILOT SEAT CONT	15-215	M256	G6

(2) Slacken the quick-release fasteners and remove the seat base inboard cover.

C. Removal

(1) Locate the appropriate relay on the relay panel assembly (14-211-1), at the inboard side of the seat base.

(2) Remove the screws securing the relay.

(3) Unplug the relay from the relay socket base and remove the relay.

R D. Preparation for Replacement Relay

R (1) Check the Part No. and examine the replacement relay
R for cleanliness and freedom from damage.

R (2) Ensure that the silicone gasket is correctly fitted.

R E. Installation

R (1) Comply with the electrical safety precautions.

R (2) Connect the relay to the relay socket base, ensuring
R that the mating surfaces are clean and undamaged.

R (3) Fit the washers and securing screws and tighten to
R a nominal torque.

R F. Test

R (1) Remove the safety clips and close the circuit
R breakers (Ref.para.B(1)).

R (2) Carry out a Functional Test - Power Controls (Ref.
R 25-11-11, Adjustment/Test).

R G. Conclusion

R (1) Refit the seat base inboard cover and secure it with
R the quick-release fasteners.

R (2) Remove all tools and equipment from the aircraft.

R 7. Relay Socket Base (Ref. Fig. 402)

R NOTE: The removal/installation procedure for the relay
R socket bases used on the captain's seat circuits is
R similar. The relay bases have either two point or
R three point fixings.

R A. Equipment and Materials

R

R	DESCRIPTION	PART NO.
R	Circuit breaker safety clips	-
R	Tool, contact, insertion and	
R	extraction (NAS 1664-16)	-
R	Contacts (BAS7419)	-
R	Torque spanner 0-15 lbf in	

R

DESCRIPTION	PART NO.
(0-0.169 mdaN) range	-

R B. Prepare to Remove Relay Socket Base

R (1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1ST PILOT SEAT SUP	14-215	M253	A3
1ST PILOT SEAT CONT	15-215	M256	G6

R (2) Slacken the quick-release fasteners and remove the seat base inboard cover.

R C. Removal

R (1) Remove the appropriate relay (Ref. para. 5 or 6 as applicable).

R (2) Remove the relay socket base as follows:

R (a) Gain access to the back of the relay panel asssembly by removing the securing screws, washers, spacers, clips and nuts.

R (b) Disconnect the wiring from the relay socket base using the extraction tool (white end).

R (c) Remove the nuts and washers securing the relay socket base to the panel; remove the relay socket base.

R D. Preparation of Replacement Relay Socket Base

R (1) Check the Part No. and examine the replacement relay socket base for cleanliness and freedom from damage.

R (2) Ensure that the silicone rubber rear grommet is

R securely bonded to the body of the relay socket base.

R E. Installation

R (1) Comply with the electrical safety precautions.

R (2) Position the relay socket base behind the relay panel assembly and secure it with the washers and nuts. For bases with two point fixings, torque-tighten each nut to 4 lbf in (0.045 mdaN) and for bases with three point fixings, torque-tighten each nut to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

R (3) Connect the wiring to the relay socket base using the contact insertion tool (blue end), ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

R (4) Check that the rear grommet is correctly fitted over the wires.

R (5) Carry out a loose articles check in the vicinity of the relay panel assembly and remove any foreign matter.

R (6) Refit and secure the relay panel assembly using the appropriate screws, washers, clips, spacers and nuts. Torque-tighten the nuts to a nominal torque.

R (7) Refit the appropriate relay (Ref. para. 5 or 6 as applicable).

R F. Test

R (1) Remove the safety clips and close the circuit breakers (Ref. para.B(1)).

R (2) Carry out a Functional Test - Power Controls (Ref. 25-11-11, Adjustment/Test).

R G. Conclusion

R (1) Refit the seat base inboard cover and secure it with the quick release fasteners.

R (2) Remove all tools and equipment from the aircraft.

R 8. Microswitch (Ref. Fig.401 and 402)

R NOTE: The removal/installation procedure for the Travel Limit Forward 'A' (M517), the Travel Limit Up 'E' (M524) and

the Travel Limit Down 'F' (M525) microswitches is similar.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Crimping tool	-
Tool, contact, insertion and extraction (M15570-22-1)	-
Contacts (P095-05)	-
Stainless steel wire 0.28 in dia. (0.7 mm)	-
Heat shrink sleeving (BAS7436)	-
Heat Gun	-

B. Prepare to Remove Microswitch

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1ST PILOT SEAT SUP	14-215	M253	A3
1ST PILOT SEAT CONT	15-215	M256	G6

(2) Slacken the quick-release fasteners and remove the seat base covers.

C. Removal

(1) Locate the appropriate microswitch in the seat base (14-211).

(2) Adjust the position and elevation of the seat to give maximum working space by the use of the seat height manual adjustment handle and the emergency crashlock and motor drive disconnect lever.

(3) Using the contact extraction tool (white end),

disconnect the wiring from the module (Ref. the applicable wiring diagram).

(4) Remove the microswitch wiring from the loom by loosening or removing clips as necessary.

(5) Remove the microswitch securing nut; and remove the microswitch from its bracket.

D. Preparation of Replacement Microswitch

(1) Check the Part No. and examine the replacement microswitch for cleanliness and freedom from damage.

(2) Remove the securing nut from the microswitch.

(3) Fit heat shrink sleeving along the length of the wire (Ref. Wiring Diagram Manual 20-41-14).

E. Installation

(1) Comply with the electrical safety precautions.

(2) Fit the replacement microswitch in the bracket ensuring that the spigot is located in the hole provided. Fit the securing nut, tighten to a nominal torque and wirelock.

(3) Route the microswitch wiring in the looms; refit and tighten the loom securing clips.

(4) Prepare the microswitch wiring in accordance with the Wiring Diagram Manual, 20-42-18.

(5) Connect the microswitch wiring to the module blocks using the insertion tool (yellow end), ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

(6) Adjust the microswitch striker bolt (Ref. 25-11-11, Adjustment/Test).

F. Test

(1) Remove all tools and equipment from the vicinity of the seat. Examine the seat base area, including the seat rails, and remove any foreign matter.

(2) Remove the safety clips and close the circuit breakers (Ref. para. B(1)).

R (3) Carry out a Functional Test - Power Controls (Ref.
R 25-11-11, Adjustment/Test).

R G. Conclusion

R (1) Refit the seat base covers and secure them with the
R quick-release fasteners.

R (2) Remove all tools and equipment from the aircraft.

R 9. Proximity Switch (M523) (Ref. Fig.401 and 402)

R NOTE: This removal/installation procedure refers to the Travel
R Limit Aft Proximity Switch (M523).

R A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Crimping tool	-
Tool, contact, insertion and extraction (M15570-22-1)	-
Contacts (P095-05)	-
Sleeving (M016)	-
Torque spanner 0-40 lbf in (0-0.452 mdaN) range	-

R B. Prepare to Remove Proximity Switch

R (1) Trip the following circuit breakers and fit safety
R clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1ST PILOT SEAT SUP	14-215	M253	A3
1ST PILOT SEAT CONT	15-215	M256	G6

R (2) Slacken the quick-release fasteners and remove the
R seat base covers.

C. Removal

(1) Locate the proximity switch (M523) at the seat base (14-211).

(2) Adjust the position and elevation of the seat to give maximum working space by the use of the seat height manual adjustment handle and the emergency crashlock and motor drive disconnect lever.

(3) Disconnect the proximity switch wiring from the module blocks (Ref. the applicable wiring diagram), using the contact extraction tool (white end).

(4) Remove the bolts securing the proximity switch to the bracket; remove the proximity switch and wiring, loosening or removing the loom clips as required.

D. Preparation of Replacement Proximity Switch

(1) Check the Part No. and examine the replacement proximity switch for cleanliness and freedom from damage.

(2) Fit two layers of sleeving on the wiring between the proximity switch and up to and including the first cable clip.

E. Installation

(1) Comply with the electrical safety precautions.

(2) Route the proximity switch wiring in the loom and position the proximity switch in the bracket. Fit the two securing bolts and nuts and torque-load each nut to between 30 and 40 lbf in (0.339 and 0.452 mdaN).

(3) Refit and tighten the loom securing clips.

(4) Prepare the proximity switch wiring in accordance with the Wiring Diagram Manual, 20-42-18.

(5) Connect the proximity switch wiring to the module blocks using the insertion tool (yellow end), ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

(6) Adjust the proximity switch (Ref. 25-11-11, Adjustment/Test).

F. Test

(1) Remove all tools and equipment from the vicinity of the seat. Examine the seat base area, including the seat rails, and remove any foreign matter.

(2) Remove the safety clips and close the circuit breakers (Ref.para.B(1)).

(3) Carry out a Functional Test - Power Controls (Ref. 25-11-11, Adjustment/Test).

G. Conclusion

(1) Refit the seat base covers and secure them with the quick-release fasteners.

(2) Remove all tools and equipment from the aircraft.

10. <u>Switch, Power On and Knob Illuminated (M501)</u>
(Ref. Fig.401 and 402)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Loctite Grade EV(Ref. 20-30-00, No. 112)	-
Locquic 'N' (Ref. 20-30-00, No. 120)	-
Cleaning solvent (Ref. 20-30-00, No. 473)	-
Torq-set driver	-
Torque spanner 0-15 lbf in (0-0.169 mdaN) range	-
Kimwipe tissues	-

B. Prepare to Remove Switch

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1ST PILOT SEAT SUP	14-215	M253	A3
1ST PILOT SEAT CONT	15-215	M256	G6

C. Removal

(1) Remove the switch (M501) at the rear of the seat control console (14-211-2).

(2) Unscrew the knob and remove it, complete with the filament, from the switch.

(3) Remove the securing nut, crinkle washer and locating washer from the switch.

(4) Remove the torq-set screws from the switch mounting bracket; remove the bracket.

(5) Remove the switch from the control console and disconnect the wiring from the screw-type terminals; remove the switch.

D. Preparation of Replacement Switch

(1) Check the Part No. and examine the replacement switch for cleanliness and freedom from damage.

(2) Unscrew and remove the knob from the switch.

(3) Remove the securing nut, crinkle washer and locating washer from the switch.

(4) Clean the switch housing using a 'Kimwipe' tissue moistened in cleaning solvent (Ref. 20-30-00, No.473) and dry thoroughly using a clean 'Kimwipe' tissue.

E. Installation

(1) Comply with the electrical safety precautions.

(2) Connect the electrical cables to the switch, ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

R (3) Position the adjustment nut as required and place the
R switch in the mounting bracket.

R (4) Engage the locating washer on the switch and locate
R it in the locating hole in the switch mounting
R bracket. Fit the crinkle washer and securing nut.
R Tighten to a nominal torque.

R (5) Position the switch mounting bracket and secure it
R with the four torq-set screws, to a nominal torque.

R <u>NOTE</u>: Wet assemble the screws by using Loctite
R grade EV (Ref. 20-30-00, No. 112) and Locquic
R 'N' (Ref. 20-30-00, No. 120).

R (6) Torque-tighten the switch securing nut to between 8.5
R and 10 lbf in (0.095 and 0.113 mdaN).

R (7) Check that the filament is fitted in the knob and
R screw the knob into the switch.

R F. Test

R (1) Remove all tools and equipment from the vicinity of
R the seat.

R (2) Remove the safety clips and close the circuit
R breakers (Ref.para. B(1)).

R (3) Carry out a Functional Test - Power Controls (Ref.
R 25-11-11, Adjustment/Test).

R G. Conclusion

R (1) Remove all tools and equipment from the aircraft.

R 11. <u>Switch (M508) and (M510)</u> (Ref. Fig.401 and 402)

R <u>NOTE</u>: The removal/installation procedure for the UP/DOWN
R Master Switch (M508) and the UP/DOWN Control Switch
R (M510) is identical.

R A. Equipment and Materials

R

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Soldering iron	-
Solder, resin cored (BS441)	-

DESCRIPTION	PART NO.
Safety flux (DTD 599)	-
Industrial methylated spirits (BS3591)	-
Crocus paper, fine grade	-

B. Prepare to Remove Switch

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1ST PILOT SEAT SUP	14-215	M253	A3
1ST PILOT SEAT CONT	15-215	M256	G6

C. Removal

(1) Locate the appropriate switch at the seat control console (14-211-2).

NOTE: The UP/DOWN Master Switch (M508) is the aft switch.

(2) Remove the securing screws from the control console side panel; remove the side panel.

(3) Loosen the switch securing nut.

(4) Lift out the switch plate to gain access to the switch connections.

NOTE: The switch plate is located on two dowels.

(5) Unsolder the wiring from the switch.

(6) Remove the securing nut, shakeproof washer and locating washer from the switch; remove the switch.

D. Preparation of Replacement Switch

R (1) Check the Part No. and examine the replacement switch
R for cleanliness and freedom from damage.

R (2) Remove the securing nut, shakeproof washer and
R locating washer from the switch.

R NOTE: If an adjustment nut is fitted on the switch,
R this must be removed and discarded.

R E. Installation

R (1) Comply with the electrical safety precautions.

R (2) Engage the switch with the switch plate.

R (3) Fit the locating washer, shakeproof washer and
R securing nut on the switch, ensure that the locating
R washer is correctly located in the locating hole in
R the switch plate and tighten the securing nut, to a
R nominal torque.

R (4) Solder the wiring to the switch terminals, ensuring
R that the connections are made in accordance with the
R cable identifications and the applicable wiring
R diagram.

R (5) Position the switch plate on the dowels and finally
R tighten the switch securing nut, to a nominal torque.

R (6) Examine the inside of the control console for clean-
R liness and remove any foreign objects.

R (7) Position the control console side panel and secure it
R with the four screws, to a nominal torque.

R F. Test

R (1) Remove all tools and equipment from the vicinity of
R the seat.

R (2) Remove the safety clips and close the circuit
R breakers (Ref. para. B(1)).

R (3) Carry out a Functional Test - Power Controls (Ref.
R 25-11-11, Adjustment/Test).

R G. Conclusion

R (1) Remove all tools and equipment from the aircraft.

R 12. Switch (M507) and (M509) (Ref. Fig.401 and 402)

NOTE: The removal/installation procedure for the FORWARD/AFT Master Switch (M507) and the FORWARD/AFT Control Switch (M509) is identical.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque spanner, 0-10 lbf in (0-0.113 mdaN) range	-
Soldering iron	
Solder, resin cored (BS441)	-
Safety flux (DTD 599)	-
Industrial methylated spirits	-
Crocus paper, fine grade	-
JC5-A Jointing compound (Ref. 20-30-00, No.382)	-
Loctite Grade 'H' (Ref. 20-30-00, No.112)	-
Locquic 'N' (Ref. 20-30-00, No.120)	-
Cleaning solvent (Ref. 20-30-00, No. 473)	-
Kimwipe tissues	-

B. Prepare to Remove Switch

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1ST PILOT SEAT SUP	14-215	M253	A3
1ST PILOT SEAT CONT	15-215	M256	G6

C. Removal

(1) Locate the two ganged switches in the crashlock release lever on the top of the captain's seat control console (14-211-2).

(2) Remove the screw from the ganging bar; remove the ganging bar.

(3) Remove the securing nuts, shakeproof washers and locating washers from both switches (M507 and M509).

(4) Remove the securing screws from the control console side panel; remove the side panel.

(5) Remove both switches (M507 and M509), together with the wiring and cable support bracket from the crash-lock release lever housing into the control console.

(6) Unsolder the wiring from the appropriate switch; remove the switch.

D. Preparation of Replacement Switch

(1) Check the Part No. and examine the replacement switch for cleanliness and freedom from damage.

(2) Remove the securing nut, shakeproof washer and locating washer from the switch.

<u>NOTE</u>: If an adjustment nut is fitted on the switch, this must be removed and discarded.

E. Installation

(1) Comply with the electrical safety precautions.

(2) Solder the wiring to the switch terminals, ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

(3) Refit both switches (M507 and M509), complete with wiring and cable support bracket into their correct locations in the housing of the crashlock release lever.

<u>NOTE</u>: Switch M509 is the LH switch.

(4) Engage the location washer, shakeproof washer and securing nut on each switch (M507 and M509) and tighten, to a nominal torque.

(5) Check the inside of the control console for cleanliness and remove any foreign objects.

(6) Position the control console side panel and secure it

R with the four screws, to a nominal torque.

R (7) Clean the ganging bar using a 'Kimwipe' tissue
R moistened in cleaning solvent (Ref. 20-30-00, No.473).
R Wipe dry, using a clean 'Kimwipe' tissue.

R (8) Examine the ganging bar and ensure that it is free
R from damage.

R (9) Apply jointing compound (Ref. 20-30-00, No. 382) to
R the mating surfaces of the ganging bar and position
R over the two switch toggles (M507 and M509).

R (10) Fit the screw in the ganging bar, wet assemble using
R Loctite grade 'H' and Locquic 'N'. Torque-tighten the
R screw to 5 lbf in (0.056 mdaN).

R NOTE: Support the ganging bar when tightening the
R screw to avoid damage to the switches.

R (11) Remove all traces of jointing compound using a clean
R 'Kimwipe' tissue.

R F. Test

R (1) Remove all tools and equipment from the vicinity of
R the seat.

R (2) Remove the safety clips and close the circuit
R breakers (Ref. para. B(1)).

R (3) Carry out a Functional Test - Power Controls (Ref.
R 25-11-11, Adjustment/Test).

R G. Conclusion

R (1) Remove all tools and equipment from the aircraft.

CAPTAIN'S SEAT ASSEMBLY - ADJUSTMENT/TEST

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The seat is mounted on rails on the left side of the flight compartment and can be electrically or manually operated to adjust its height, or its fore-and-aft position on the mounting rails.

This topic describes the adjustment of the various control mechanisms of the seat and details the test procedure for each of the seat functions.

2. Seat Crashlock Mechanism and Motor Drive Disconnect Mechanism - Adjustment

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Slip gauges	-
Straight edge; minimum length 12 in (30.48 CM).	-
Torque screwdriver 0-15 lbf in (0-0.170 mdaN) range	-
Torque spanner, 0-32 lbf in (0=0.361 mdaN) range	-
Stainless steel wire 0.028 (0.7 mm) dia	-

B. Prepare to Adjust Crashlocks and Motor Drive Disconnect Mechanism

(1) Trip the seat circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1ST PLT SEAT SUP.	14-215	M253	B 3
1ST PLT SEAT CONT.	15-215	M256	E 5

(2) Remove the seat pedestal covers.

R C. Adjust Crashlock (Ref. Fig. 501)

(1) Operate the emergency crashlock and motor drive disconnect lever to disengage the motor drive and the lock pin from the rail. Position the seat so that, after releasing the lever, the lock pin remains disengaged i.e., resting on the top surface of the rail.

(2) Using slip gauges and a straight-edge, measure the dimension between the top surface of the seat base side beam and the head of the locking pin.

(3) Adjust the locknuts on the eyebolt connecting the spring-loaded pin actuator to a mean setting between the limits of available adjustment.

R (4) Move the seat to a position where the lock pin engages with the holes in the rail.

(5) Adjust the length of the crashlock control cable to obtain a dimension, measured with the slip gauges and straight-edge, between the top surface of the side beam and the head of the lock pin, which is equal to the dimension found in operation (2) less 0.25 in (6.35 mm).

NOTE: If the above dimension can not be obtained by adjustment of the cable length only, additional adjustment is to be made at the eyebolt.

(6) Tighten the adjustment locknut on the eyebolt and operating cable.

(7) Check/adjust the motor drive disconnect mechanism (Ref. para. D).

D. Adjust Motor Drive Disconnect Mechanism (Ref. Fig. 501)

(1) Lift the crashlock and motor drive disconnect lever and check the travel of the cable ball end attachment to the motor disconnect lever; the travel dimension should be 0.60 in (1.52 mm). Adjust if necessary as follows:

(a) Slacken the locknut on the adjustment set screw on the lever mounting bracket and unscrew the set screw until it just protrudes through the bracket.

(b) Lift the crashlock and motor drive disconnect lever. Check that the travelled distance of the cable attachment point of the lever is 0.060 in (1.52 mm). Adjust the length of the operating cable outer hose, between anchorage points, by means of the screwed ferrule ends of the cable, to achieve the required travel.

(c) Turn the set screw inward until it just contacts the motor disconnect lever then tighten the locknut.

(2) Rotate the motor drive gear assembly to establish that the drive from the gearbox has been disengaged.

(3) Release the crashlock and motor drive disconnect lever then operate the lever to ensure positive disengagement/engagement of both motor drive and crashlock.

(4) Fit the covers to the seat pedestal and torque-load the securing screws to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(5) Remove the safety clips and reset the seat circuit breakers.

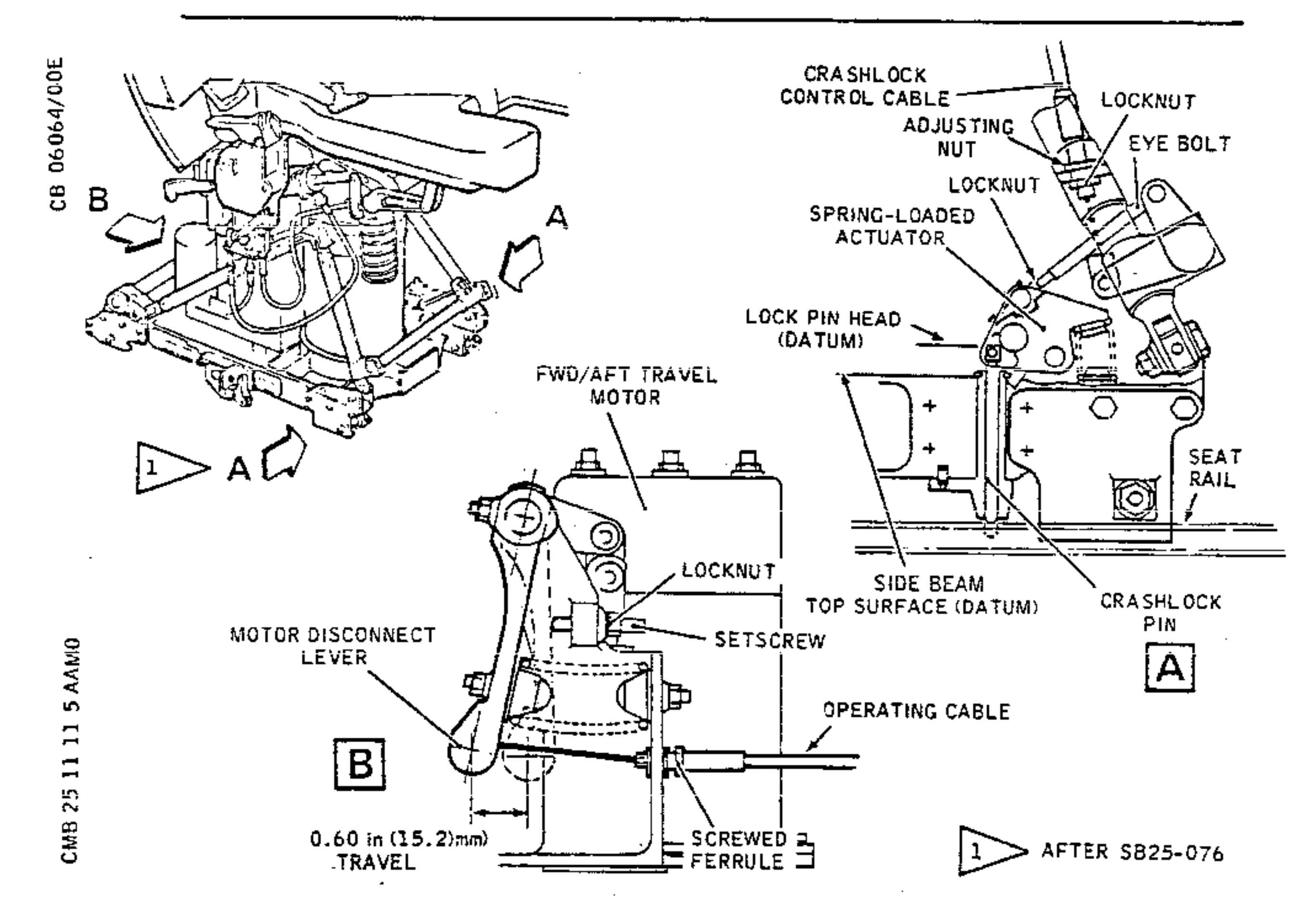
R (6) Test the fore-and-aft travel of the seat and check the operation of the crashlock. (Ref. para. 5A).

3. Forward and Rearward Travel Limit/Proximity Switches - Adjustment

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-

DESCRIPTION	PART NO.
Slip gauges	-
Torque screwdriver, 0-15 lbf in (0-0.170 mdaN) range	-
Torque spanner, 0-40 lbf in (0-0.452 mdaN) range	-
Stainless steel wire 0.028 in (0.7 mm)	



R

Crashlock to Adjust Limit/Proximity switches
Figure 501

B. Prepare to Adjust Limit/Proximity switches

(1) Trip the seat circuit breakers and fit safety clips.

(2) Remove the seat pedestal covers

C. Adjust Forward Travel Limit Switch (Ref. Fig. 502)

Before SB 25-025 For A/C 003-008

(1) Ensure that the seat is positioned so that the actuator roller of the limit switch is clear of the cam plate adjoining the inboard seat rail.

(2) Unlock and slacken the locknut securing the striker bolt in the actuator and screw the bolt fully into the actuator finger-tight.

(3) Lift the actuator roller and insert slip gauges totalling 0.40 in (10.16 mm) thickness between the roller and the base flange of the rail; ensure that slip gauges are clear of rail fixing screws.

(4) Unscrew the striker bolt until the bolt head just contacts the top of the switch plunger.

After SB 25-025 For A/C 001-007,

(5) Ensure that the seat is positioned so that the actuator roller of the limit switch is directly over the camplate adjoining the inboard rail.

(6) Lower the actuator roller onto the camplate and adjust the striker bolt until a gap of 0.14 to 0.15 in (3.556 to 3.81 mm) is achieved between the thread of the microswitch and the striker bolt.

(7) If this dimension cannot be achieved fit a packer under the serrated plate and bolt the camplate, serrated plate and packer securely to the floor; repeat operation (6).

(8) Torque-load the locknut on the striker bolt to between 27 and 32 lbf in (0.302 and 0.361 mdaN) and wire-lock.

(9) Adjust the fore and aft position of the camplate so that when moving the seat forward under power at maximum speed, the seat stops automatically within n 0.05 to 0.10 in (1.27 to 2.54 mm) of the forward stop.

(10) Torque-load the bolts securing the camplate to between 40 and 45 lbf in (0.452 to 0.509 mdaN) and wirelock.

(11) Proceed to adjust the rearward travel proximity switch

(Ref. para.D.).

D. Adjust Rearward Travel Proximity Switch (Ref. Fig. 502)

(1) Move the seat rearward until it is against the front of the interrupter strut on the outboard rail.

NOTE: If the first supernumerary seat is fitted, the rear end of the strut is attached to that seat. If the first supernumerary seat is not fitted the strut will be against the rear stop on the outboard rail (Ref. 25-11-00, Description and Operation).

(2) Adjust the position of the limit switch vertically
R by slackening the mounting bracket arm securing bolts
R and adjust the fore/aft position of the
target on the interrupter strut so that when moving
R aft under power at maximum speed, the seat seat stops
automatically within 0.05 to 0.10 (1.27 to 2.54 mm)
R of the stop on the strut.

R (3) Torque tighten the limit switch mounting bracket arm
R securing bolts and also the target securing bolts
R to between 30 and 40 lbf in (0.339 to 0.452 mdaN).

(4) Remove the safety clips and reset the seat circuit breakers.

(5) Test the seat fore-and-aft powered movement (Ref. para.6) and check the operation of the forward and rearward travel limit switches.

4. Maximum Seat Raise and Lower Travel Limit Switches - Adjustment

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque screwdriver, 0-15 lbf in (0-0.170 mdaN) range	-
Torque spanner, 0-32 lbf in (0-0.361 mdaN) range	-
Test lamp	-

DESCRIPTION	PART NO.
Stainless steel wire 22 SWG	-

B. Prepare to Adjust Limit Switches

(1) Trip the seat circuit breakers and fit safety clips.

(2) Remove the seat pedestal covers.

R C. Adjust Seat Raise Travel Limit Switch (Ref. Fig. 502)

(1) Connect a test lamp across the terminals of the limit switch.

(2) Manually operate the seat to its maximum height.

(3) Slacken the locknut on the target screw situated at the base and aft of the telescopic tube assembly and adjust the screw until the test lamp is extinguished. Rotate the screw a further two turns then torque-load the locknut to between 27 and 32 lbf in (0.305 and 0.361 mdaN) and wire-lock.

(4) Remove the test lamp.

R D. Adjust Lower Travel Limit Switch (Ref. Fig. 502)

(1) Connect a test lamp across the terminals of the limit switch.

(2) Manually operate the seat to its lowest limit.

(3) Slacken the locknut on the target screw which is situated at the top and aft of the telescopic tube assembly and adjust the screw until the test lamp is extinguished. Rotate the screw a further two turns then torque load the locknut to between 27 and 32 lbf in (0.305 and 0.361 mdaN) and wire-lock.

(4) Remove the test lamp.

(5) Fit the seat pedestal covers. Torque-load the cover securing screws to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(6) Remove the safety clips and reset circuit breakers.

(7) Test the powered height adjustment of the seat (Ref. para.6).

5. Functional Test - Manual Controls

A. Seat Fwd./Aft Travel

(1) Lift the emergency crashlock and motor drive disconnect lever to disengage the lock pin; move the seat forward and rearward on its rail to check ease of movement and full travel. Release the lever and
R check that the lock pin engages fully into the rails at the various crashlock hole locations.

B. Seat Height Variation

(1) Sit in the seat. Disengage the height adjustment handle from the slot in the locking plate.

(2) Rotate the handle and check that there is ease of movement throughout the whole range of height adjustment.

(3) At various positions push the handle into the locking slot and check for positive locking.

C. Seat Back Angle Variation

(1) Sit in the seat and lift the back angle adjustment locking lever, then lean backward to exert pressure against the back of the seat. Release the lever at various back angle positions and check that the seat back is positively locked.

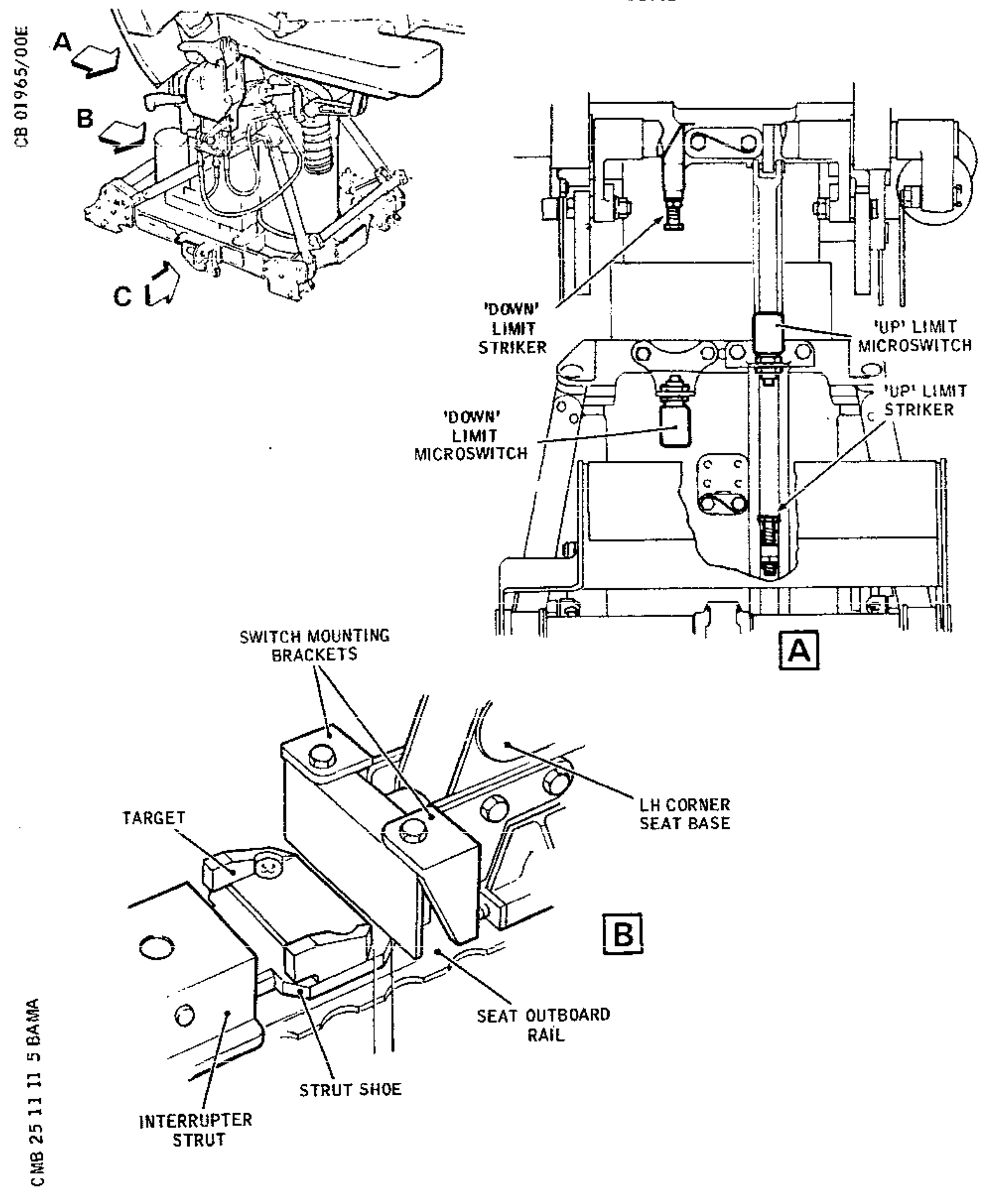
(2) Move the back of the seat to the full recline (rearward) position. Keep the locking lever in the raised position, then ease forward in the seat and check that the spring loading moves the back of the seat to the fully forward position.

D. Armrest Angle Adjustment

(1) Operate the knurled roller under each armrest and ensure that the arm adjusts smoothly from stop to stop. Raise each arm through 90 deg and ensure that it locks positively in the raised position.

(2) Operate the trigger immediately below the roller and check that the arms can be immediately lowered.

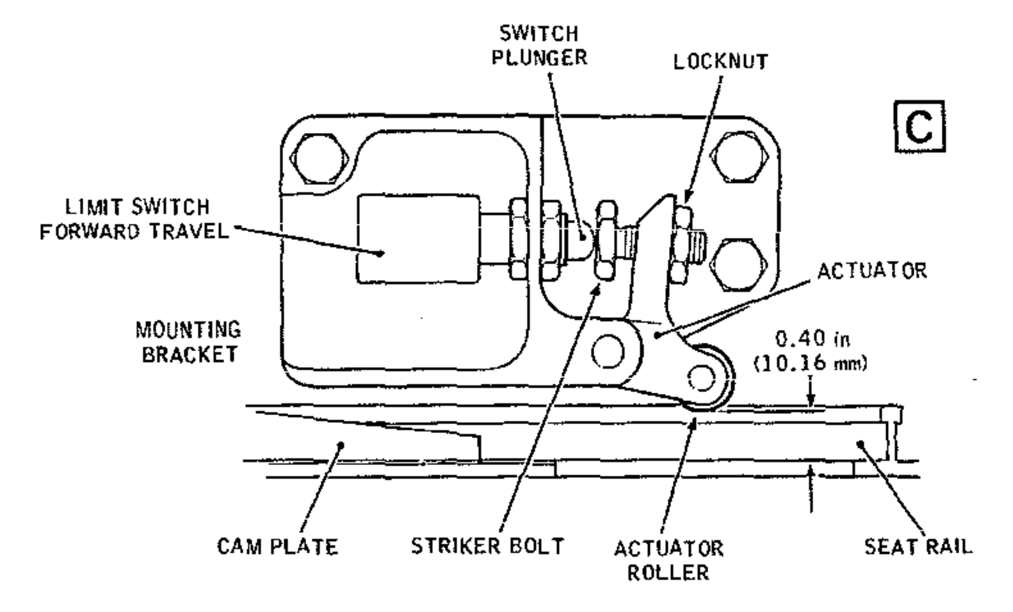
(3) With the arms locked in the raised position, lift the



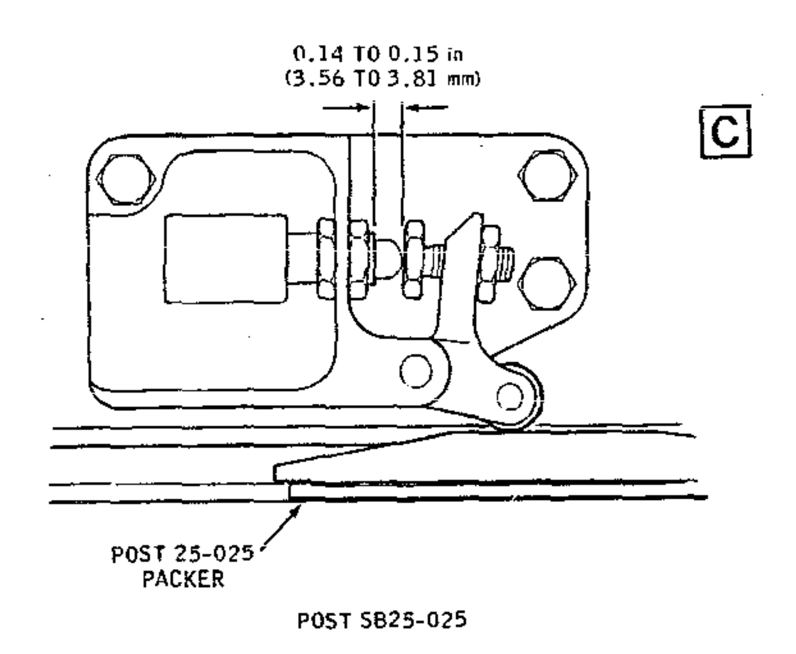
Seat Travel Limit and Proximity Switch
Adjustment (Sheet 1 of 2)
Figure 502

R

CB 08636/00A



PRE SB25-025



POST SB25-025

CMB 25 11 11 5 BAMB

Seat Travel Limit and Proximity Switch
Adjustment (Sheet 2 of 2)
Figure 502

R

arm hinge block and swing the arms into the stowed position behind the seat back ensuring that each arm is firmly located in its respective detent.

(4) With the arm in the lowest position, it must not be possible to lift the hinge block to rotate the armrest.

(5) With the armrest stowed behind seat back it must not be possible to depress the trigger to lower the armrest.

E. Seat Pan Angle Variation

(1) Sit in the seat and lift the seat pan angle adjustment lock lever and shift the body weight forward and aft to alter the angle of the seat pan.

(2) Check that positive locking of seat pan angle is obtained within the adjustment range when the lever is released.

F. Safety Harness

(1) Sit in the seat and fasten the safety harness in the usual position on the body.

(2) Move the inertia harness control lever to the rear (automatic locking release) position to ensure reel mechanism is unlocked, then release the lever which should automatically return to the centre position.

(3) Check that with the lever in the centre position it is possible to slowly withdraw the harness strap from the reel and that when tension on the strap is released it is retracted into the reel.

(4) Attempt to withdraw the strap with a sudden jerk and ensure that withdrawal is baulked by action of the inertia lock within the reel.

(5) Move the control lever to the rear position again, then release it to return to the centre position. Check that the harness moves freely in either direction. Pull the strap partly out and, retaining the strap, move the control lever to the forward (manual locking) position. Check that reel out of the strap is blocked but that it reels in automatically when released.

NOTE: With the control lever set in either the

forward or centre positions, reel in of the harness should be accompanied by a distinctive audible rattle.

(6) Release the harness. Withdraw one lap strap from its extractor reel then check that it automatically reels in, one ratchet tooth at a time, and that at each of these stages it is locked against reel out until it is at the full reel-in position. Repeat the check on the other lap strap.

6. Functional Test - Power Controls

A. Prepare to Test

(1) Make available electrical ground power (Ref. 24-41-00).

(2) Pull the power on-off switch and check that its green indicator lamp illuminates and that rotation of
R the glass dims the light.

B. Test Seat Power Controls

(1) Lift the crashlock release lever and operate the horizontal travel switches. Check that the seat movement, forward and rearward as selected, is smooth over the full range of travel and is terminated in each direction by the operation of the limit switches.

(2) Operate the height control switches and check that the seat travels through its full vertical adjustment and is terminated in each direction by operation of the limit switches.

(3) Isolate the seat power supply by pressing the power on-off switch and check that the indicator lamp is extinguished.

(4) Switch off and disconnect the electrical ground supply (Ref. 24-41-00).

CAPTAIN'S SEAT ASSEMBLY - INSPECTION/CHECK

1. General (Ref. Fig. 601)

The seat is mounted on rails on the left side of the flight compartment. Powered horizontal movement is effected by a motor driven pinion operating in a rack on the outboard rail.

In the following inspection/check:

- paragraphs 2.B. and C. are inspections with the seat installed;

- paragraph 2.D. with the seat removed.

2. Inspection/Check

A. Equipment and Materials

DESCRIPTION	PART NO.
Micrometer - range 0-1 in (0-25.4 mm)	-
Dial test indicator	-
Cleaning solvent (Ref. 20-30-00, No.473)	BACM 302
'Kimwipe' tissue	-
Vernier calipers - range 0-1 in (0-25.4 mm)	-

B. Inspect - Seat Installed

(1) Inertia safety harness attachments for cracks, distortion or corrosion.

(2) Harness webbing for opening of weave, fraying, looseness of stitching or contamination by oil or grease.

(3) Control cables for chafing or kinking.

(4) Electrical cables and connections for chafing or cracks.

(5) Seat structure and components for cracks, burrs or

other damage.

(6) Seat rails and associated mechanisms for cleanliness.

C. Check - Seat Installed

(1) Seat structure and components for security of attachments and locking devices.

(2) Control cables for security and location of end fittings.

(3) Electrical cables and connections for security and correct fitting.

(4) Seat rails and associated mechanisms for security.

D. Inspection/Check - Seat Removed

(1) Remove the seat (Ref. 25-11-11, Removal/Installation).

(2) Thoroughly clean the crashlock pin and seat rails with a 'Kimwipe' tissue and cleaning solvent. Dry the components thoroughly using a clean 'Kimwipe' tissue.

(3) Inspect both inboard and outboard seat rails for damage. If damage is perceptible measure and assess the degree of damage using a D.T.I. (Ref. Fig.602)

R (4) Check the crashlock pin and outboard (inboard after
R SB25-076) cracks and wear in conjunction with Table 601.

(5) Rectify by replacement of any damaged or worn
R component or embody SB25-076.

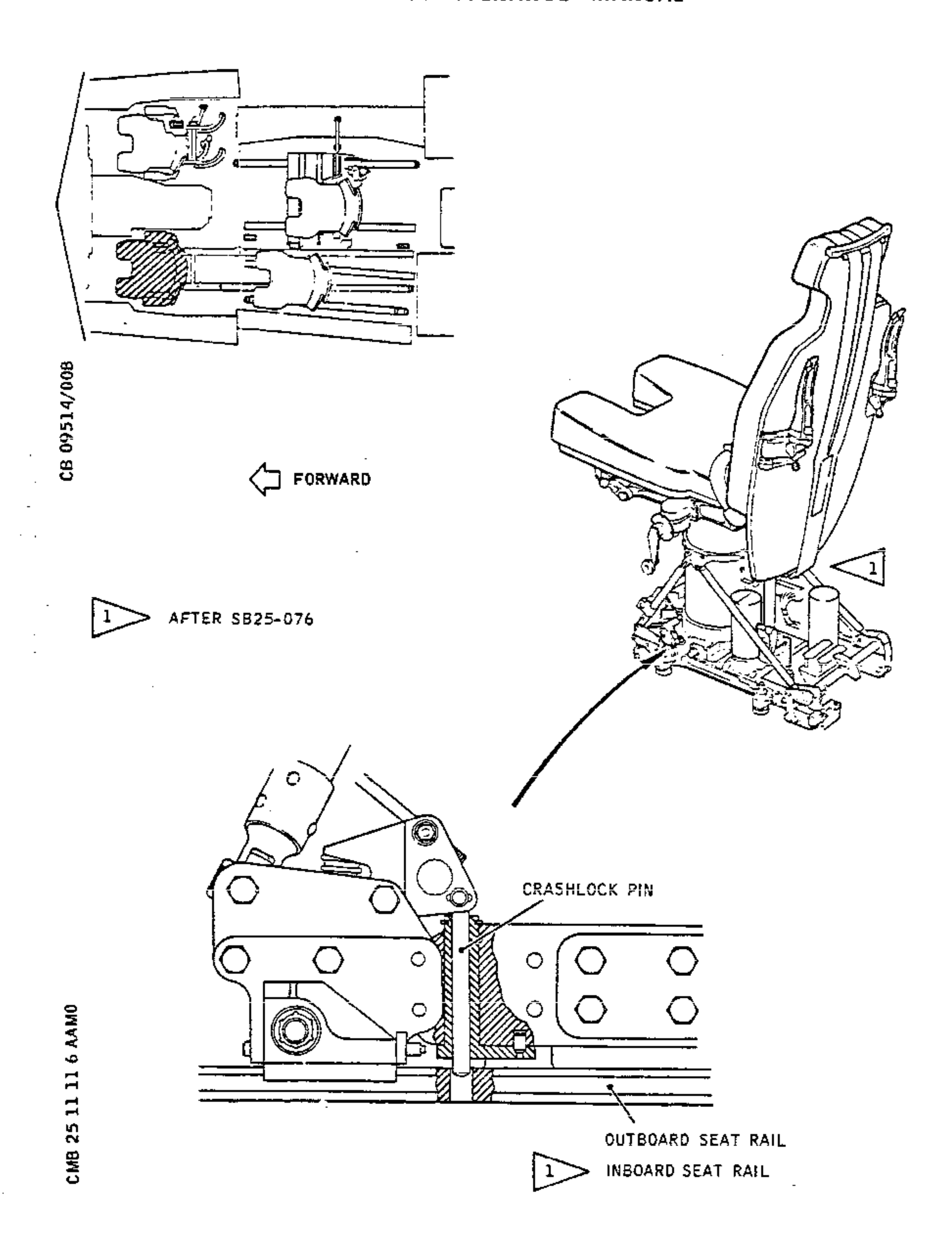
	Detail and Item No.	Original Mfg Limits: Dimenion inch (Millimeters) Min.	Max.	Assy.Clearance Inch (Milli.) Min.	Max.	In-Service Wear Limits: Dimension Limits Inch (Milli.) Min.	Max.	Max. Allow. clear in (mm)
R	Seat rail hole dia.	0.2953 (7,501)	0.2964 (7,529)	0.0458 (1,163)	0.0475 (1,207)		0.32 (8,13)	0.070 (1,78)
R	After SB25-076 seat rail hole dia.	0.3543 (9.0)	0.3578 (9.09)	0.0423 (1.07)	0.0464 (1.18)		0.38 (9.65)	0.070 (1.78)
R	Crash-lock Pin dia.	0.2489 (6,322)	0.2495 (6,337)				0.245 (6.2)	
R	After SB25-076 Crash-lock Pin dia.	0.3114 (7.91)	0.3120 (7.92)				0.31 (7.87)	

Wear Limits - Crashlock Pin Seat Rail
Table 601

E. Conclusion

(1) Refit the seat (Ref. 25-11-11, Removal/Installation).

(2) Check that the area is clean and remove all tools and equipment from the aircraft.



Captain's Seat - Crashlock Pin and Forward Seat Rail
Figure 601

CB 09515/01A

DAMAGED EDGES

BOUNDARY OF BLEND OUT

$X = \frac{t}{5}$ MAX FLANGE (1)

= 0.098 in (2.5 mm) FLANGE (2)

L = 20X MIN

R = 25X MIN

C = 1.2D

X = DAMAGE DEPTH AFTER BLENDING FLANGE (1) & (2)

L = DAMAGE LENGTH AFTER BLENDING

R = RADIUS LIMITS OF BLENDED ZONE

C = DISTANCE BETWEEN BLENDED ZONE AND THE CENTRE OF A FASTENER OF DIA. D

t = TOTAL WIDTH OF FLANGE AT (1) & (2)

BLEND OUT DAMAGE RESPECTING RADIUS R AS SHOWN

CRACKS
CRACK DETECT
NO CRACKS ALLOWED
(BUT EDGE CRACKS TREAT AS DAMAGED EDGES)

SCORE, SCRATCH, ABRASION AND MILD CORROSION

(3) DAMAGE IN THIS AREA SEE SHEET 2

(4) 10Y 10Y 10Y L T (6) (5) 'D' MIN. T T

ATTACHMENT HOLE 'D' DIA.

Y MAX

= 0.039 in (1.0 mm) ON SURFACE (3)

= 0.016 in (0.4 mm) ON SURFACE (4)

= $\frac{T}{8}$ ON SURFACES (5) AND (6)

L = 3.94 in (100 mm) MAX (4) (5) (6)

IF DAMAGE IS IN LINE ON OPPOSITE FACES IN THE RECESS, ALLOWABLE DEPTH Y = CUMULATIVE DAMAGE (6) ONLY ONE DAMAGED AREA IS ALLOWED BETWEEN ANY TWO ADJOINING ATTACHMENTS.

NOTE : AFTER BLENDING OUT AREA MUST BE CRACK DETECTED.

AFFECTED AREA MUST BE CHECKED TO ENSURE THAT ALL TRACES OF CORROSION ARE REMOVED AND AREA REPROTECTED AS REQUIRED.

Y = DAMAGE DEPTH AFTER BLENDING

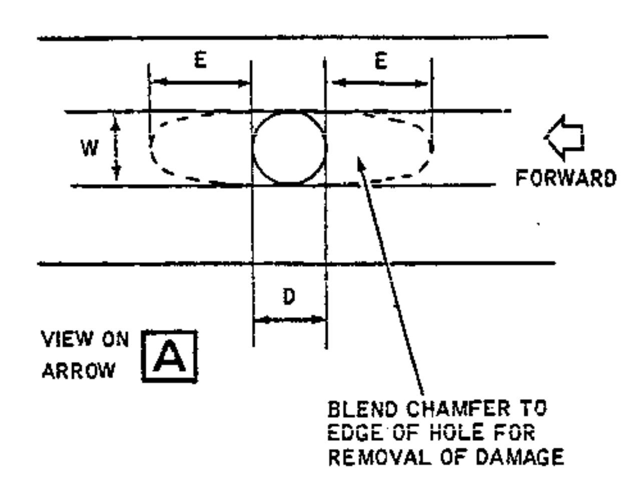
T = THICKNESS OF DAMAGED WEB OR FLANGE

CMB 25 11 11 6 BAMA

Permissible Damage Criteria - Seat Rails
(Sheet 1 of 2)
Figure 602

R

CB 09550/00B



P = 0.2 in (5.1 mm) MAX.

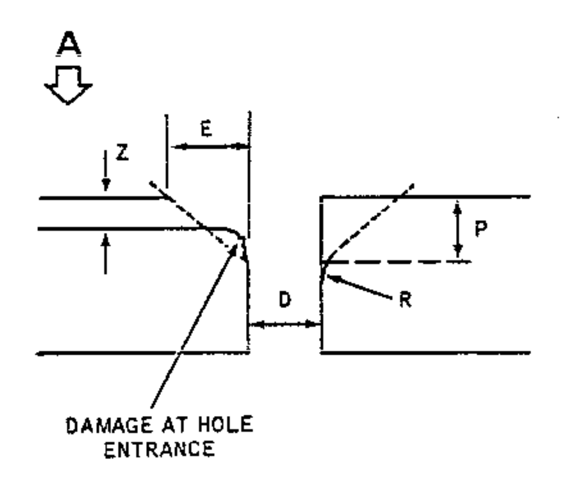
D = 0.32 in (8.13 mm) MAX.

R = 0.03 in (0.76 mm)

E = 0.20 in (5.1 mm)
ON CENTRE LINE AND INTERSECTION
WITH TOP SURFACE (MAX).

W = 0.3 in (7.62 mm) MAX.

Z = 0.045 in (1.14 mm) MAX.



AFTER SB25-076

P = 0.17 in (4.32 mm) MAX.

D = 0.38 in (9.65 mm) WORN HOLE MAX.

R = 0.03 in (0.76 mm)

E = 0.17 in (4.32 mm)
ON CENTRE LINE AND INTERSECTION
WITH TOP SURFACE (MAX)

Z = 0.045 in (1.14 mm) MAX.

DAMAGE ACCEPTABLE PROVIDED IT IS WITHIN LIMITS AS INDICATED

W = WIDTH OF GROOVE WORN IN RAIL BY SEAT CRASH LOCK PIN

Z = DEPTH OF GROOVE WORN IN RAIL BY SEAT CRASH LOCK PIN

D = ORIGINAL HOLE MAXIMUM DIAMETER

E = LIMIT OF ELONGATION AFTER BLENDING

P = DEPTH OF CHAMFER (AT C/L)

CMB 25 11 11 6 BAMB

Permissible Damage Criteria - Seat Rails
(Sheet 2 of 2)
Figure 602

R

END OF THIS SECTION

NEXT

INTERRUPTER STRUT AND SHOES, AND INTER-SEAT STRUT - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00. ENSURE THAT THE SEATS ARE ELECTRICALLY ISOLATED AT ALL TIMES EXCEPT WHEN THE SEATS ARE REQUIRED TO BE RE-POSITIONED.

1. General

The interrupter and inter-seat struts which limit the movement of the captains, first supernumerary and 3CM seats, are located on the captains outboard and inboard seat rails respectively. The interrupter strut is secured to the front face of the first supernumerary seat with a spring-loaded latch assembly, and the inter-seat strut is secured to the rear of the captains seat. When the first supernumerary seat is not fitted, the rear end of the interrupter strut is secured to the rear end stop on the seat rail.

The interrupter strut and the target on the forward shoes may be removed independently.

2. Interrupter Strut and Shoes (Ref. Fig. 401)

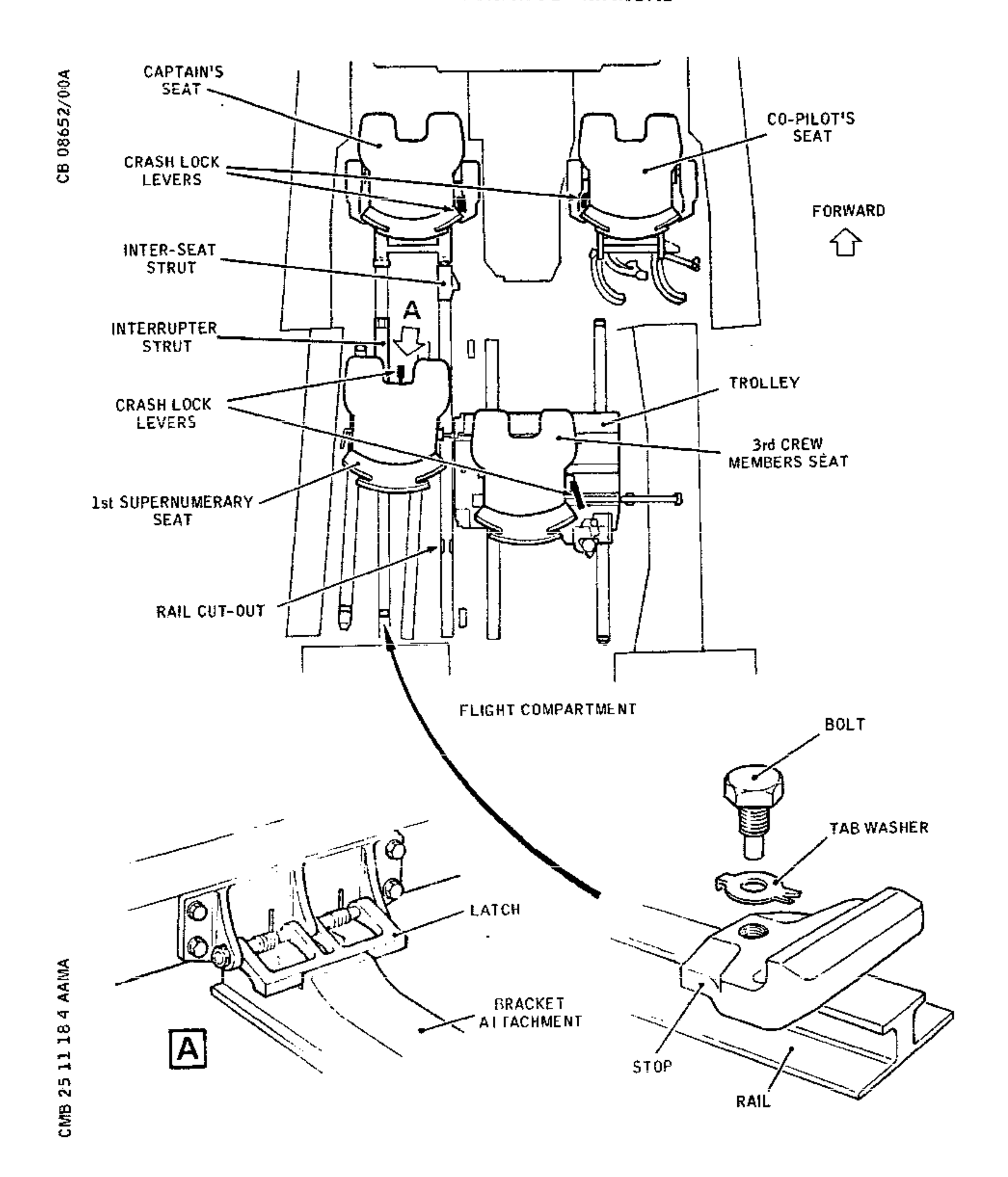
A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Cleaning solvent BACM302 (Ref.20-00-00, No.473)	-
Torque spanner 0-60 lbf in (0-0.678 mdaN) range	-

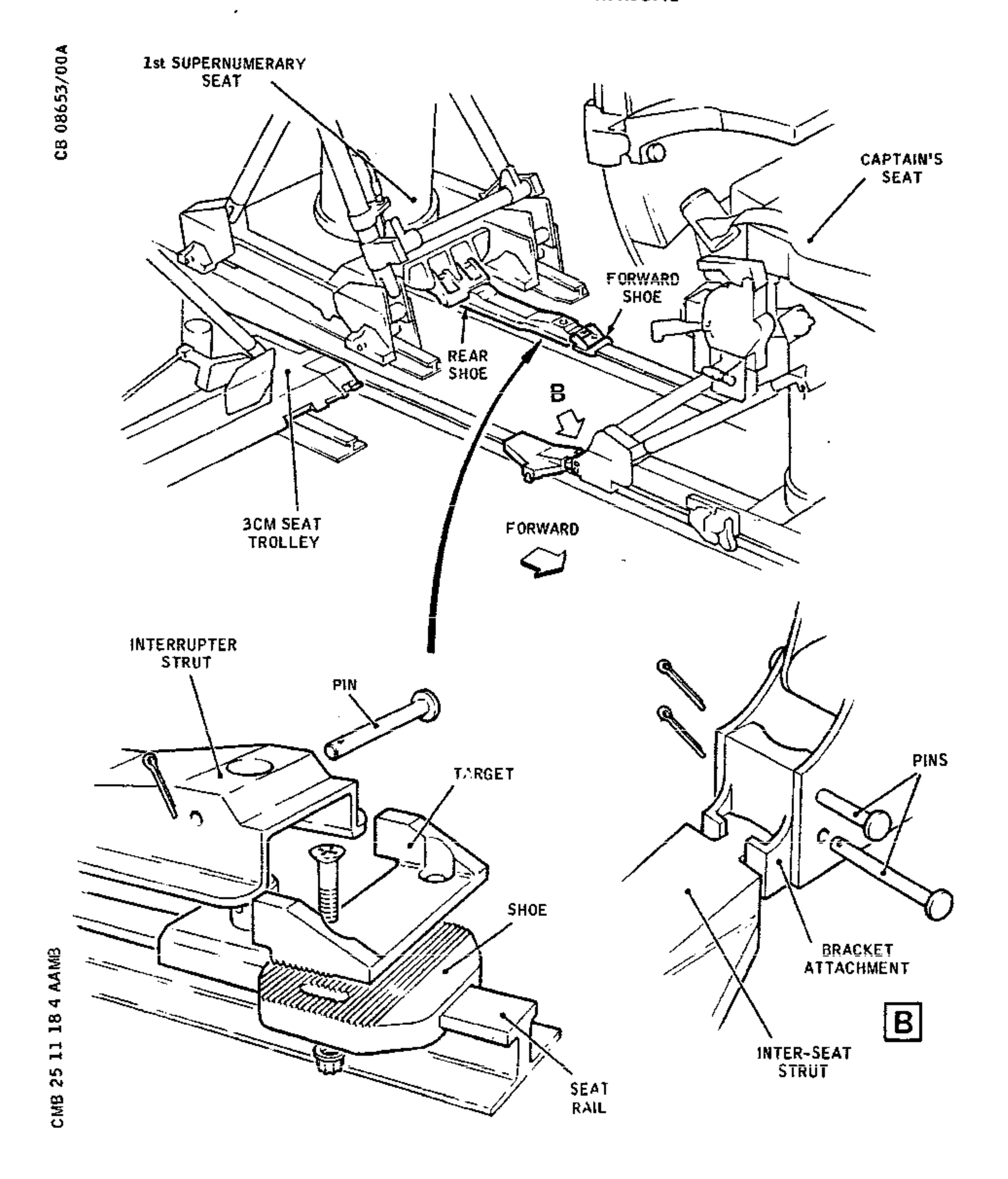
B. Prepare to Remove Interrupter Strut and Shoes

(1) Trip the captain and 3CM seat circuit breakers and fit safety clips.

Printed in England



Interrupter and Installation
Inter-Seat Struts
Figure 401



Interrupter and Installation
Inter-Seat Struts
Figure 401

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1st PILOT SEAT SUPPLY	14-215	M 253	A 3
1st PILOT SEAT CONTROL	15-215	M 256	G 6
3 CM SEAT SUPPLY	14-216	M 252	E17
3 CM SEAT CONTROL	14-216	M 255	D22

(2) Obtain maximum work room by manually operating the crashlock handles on the Captains, 3CMs and 1st supernumerary seats, and moving the seats into the following positions:

(a) Captains seat fully forward.

(b) 3CM seat outboard into its recess.

(c) 1st supernumerary seat where required.

C. Remove Strut and Shoes

(1) Manually lift the spring-loaded latch and slide the interrupter strut rearwards on the seat rail, beneath the first supernumerary seat.

(2) Remove the split pin and pin securing the strut to each of the two shoes.

(3) Disengage the strut from the shoes; remove the strut.

(4) Remove the shoes:

(a) Remove the bolt and tab washer securing the rear end stop to the Captains seat rail; remove end stop.

(b) Slide the shoes rearward on the seat rail; remove the shoes.

D. Install Strut and Shoes

(1) Thoroughly clean the captains seat outboard rail with a clean lint-free cloth moistened with solvent; ensure that the rail is undamaged.

(2) Install the shoes:

(a) Engage the shoes with the seat rail ensuring that the target is located correctly.

(b) Ensure that each shoe can move smoothly over the full length of the seat rail without obstruction.

(c) Position the end stop on the rail and secure it with a tabwasher and bolt. Torque load the bolt to between 27 and 32 lbf in (0.305 and 0.361 mdaN) and lock the bolt with the tabs.

(3) Locate the interrupter strut on the shoes, and secure it with pins and split pins.

(4) Lift the spring-loaded latch on the 1st supernumerary seat base, slide the interrupter strut forward along the outboard rail, beneath the seat, until the latch can engage the strut; release the latch.

(5) Remove the safety clips and reset the circuit breakers previously tripped.

(6) If the target has been removed from the forward shoe, adjust the target on the shoe serrations as indicated in Adjust Rearward Travel Proximity Switch (Ref. 25-11-11, Adjustment/Test).

3. Inter-Seat Strut (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Cleaning solvent BACM302 (Ref. 20-00-00, No.473)	-

B. Prepare to Remove Inter-seat Strut

(1) Trip the Captains and 3CM Seat circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1st PILOT SUPPLY	14-215	M 253	A 3
1st PILOT CONTROL	15-215	M 256	G 6
3CM SEAT SUPPLY	14-216	M 252	E17
3CM SEAT CONTROL	14-216	M 255	D22

(2) Obtain maximum work room by manually operating the crashlock handles on the captains, 3CMs and 1st supernumerary seats into the following positions:-

(a) Captains seat fully forward.

(b) 3CM seat outboard into its recess.

(c) 1st supernumerary seat where required.

C. Remove Inter-seat Strut.

(1) Remove the two split pins and pins securing the bracket to the rear of the captain seat; disengage the bracket from the inter-seat strut.

(2) Slide the inter-seat strut rearward until the strut is over the rail cut-outs; remove the strut.

D. Install Inter-seat Strut.

(1) Thoroughly clean the captains seat inboard rail with a clean lint-free cloth moistened with solvent; ensuere that the rail is undamaged.

(2) Position the inter-seat strut over the rail cut-outs, and slide the strut forward to the captains seat. Ensure that the strut moves smoothly on the seat rail without obstruction.

(3) Engage the bracket with the front of the inter-seat strut; secure it to the captains seat, with two pins and split pins.

(4) Remove the safety clips and reset the seat circuit breakers previously tripped.

CO-PILOT'S SEAT ASSEMBLY - DESCRIPTION AND OPERATION

1. General

R The co-pilot's seat, on the right-hand side of the flight compartment is mounted on curved rails and radius arms which guide it rearward and outboard allowing access to the seat. The seat is powered along its rails and in its vertical adjustment by separate 28 V d.c. motors. In the event of power failure the seat can be adjusted horizontally or vertically by manually operated mechanisms. Provision is made for adjustment in tilt of the seat pan and seat back, also in the angle of the two armrests fitted to the seat back.

Basically the seat comprises a hinged backrest and seat pan mounted on a telescopic tube assembly which is supported by tubular members bolted to the motorized base and the outer tube.

2. Seat Pan, Seat Back and Armrests (Ref. Fig. 001)

The seat pan hinges on a bracket assembly mounted on the top of telescopic tubes and can be adjusted through an angle of 10 deg.

The seat back hinges on the same bracket assembly and can tilt rearward through 14 deg. Brackets on each side of the seat
R back accommodate vertically mounted hinge pins on which the armrests are mounted. A knurled roller on the underside of
R each armrest allows it to be adjusted over a 2 in (50.8 mm) range at its tip. A thumb lever immediately aft of each knurled roller, when operated, allows the arm to be tilted down at its tip to provide elbow clearance for the occupant. When in the raised position the inboard arm can be rotated around the vertical hinge to be stowed behind the seat back; whereas the outboard armrest cannot be fully raised.

The seat back and seat pan have removable cushions which are held in place in the respective structures by strips of non-slip (Velcro) material bonded to the structure.

3. Seat Base Assembly (Ref. Fig. 001)

Vertical adjustment of the seat is effected by the telescopic tube assembly of the seat base. The tube assembly comprises an outer support tube accommodating an adjustable centre tube and inner tube at the top of which is mounted the bracket holding the seat pan and seat back. The centre tube is keyed to the outer and inner tube in a manner which permits only vertical movement.

A screw jack, motor-driven during power operation or rotated by a handle during manual operation, is located inside the tube assembly and is supported by an upper bearing assembly to the inner tube and by a lower bearing assembly to the base of the outer tube. The jack provides a 7 inches variation of seat height.

R The seat is located by spigots and mounted on radius arms
R which are part of the seat rail installation (Ref.25-11-00,
R Description and Operation); the spigots extend below the seat
R base at each corner. The crashlock pin operates through the
R front inboard spigot and engaged with holes at 0.5 in (12.7
R mm) intervals in the inboard guide rail to lock the seat
R in position. The seat can be moved over a range of 6.5 in
R (165 mm) fore-and-aft and 2.75 in (70 mm) outboard.

The seat base accommodates the two electric motors and drive mechanisms; electrical components for the control circuits are mounted on a relay panel which is situated on the outboard side of the seat. Two proximity switches, mounted on the outboard side beam, limit the seat forward and rearward movement.

Control levers and switches for operation of the seat are, with the exception of the manually operated height adjustment handle, the armrest lever and the shoulder harness inertia reel control, grouped in a control console mounted on the inboard (left hand) side of the seat.

4. Inertia Reel and Safety Harness (Ref. Fig. 001)

A safety harness comprising lap and shoulder straps, plus an anti-G strap, is fitted to the seat. The shoulder straps are controlled by an inertia reel mounted at the base of the seat back and pass through guide members at the top of the seat. The lap straps are self stowing, retracting into cylindrical containers mounted at the rear of the seat pan.

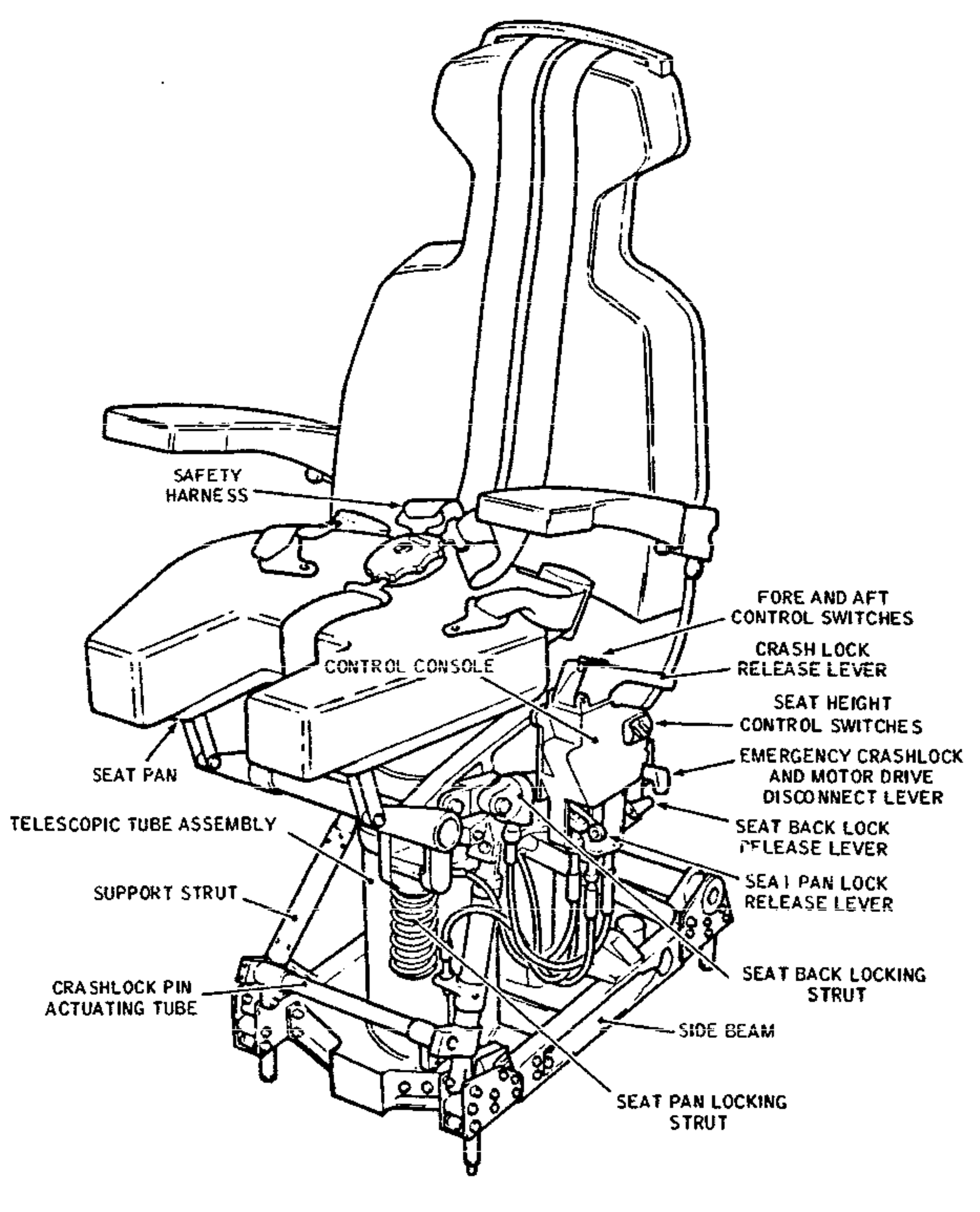
5. Operation

A. Manual Controls (Ref. Fig. 001)

An emergency crashlock and motor drive disconnect lever is angled outward from the rear of the control console. This lever interconnects with the crashlock lever (Ref. para. B); its purpose is, in the event of failure in power control, to disengage the crashlock pin from the seat rail and to disconnect the motor drive mechanism enabling the seat to be moved manually. The lever is lifted to effect disengagement.

Manual adjustment in seat height is facilitated by a

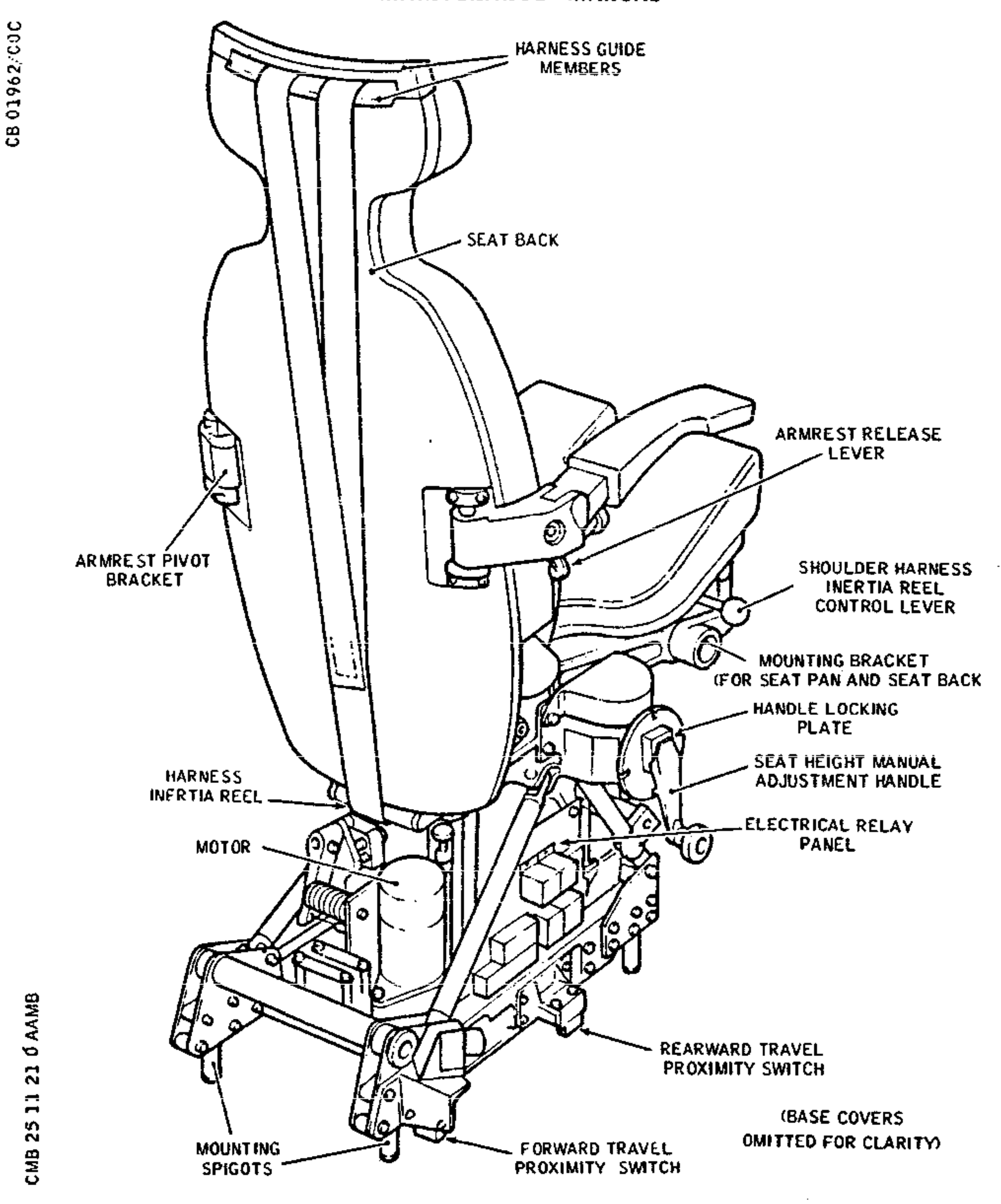
CB 01961/00C



(BASE COVERS OMITTED FOR CLARITY)

Co-pilots Seat Assembly
(Sheet 1 of 2)
Figure 001

CB 01962/C0C



CMB 25 11 21 0 AAMB

Co-pilots Seat Assembly
(Sheet 2 of 2)
Figure 001

cranked handle at the outboard (right hand) side of the seat. To operate the handle, it is first pulled out to disengage it from a locking plate, then rotated in the required direction to raise or lower the seat. At the required height the handle which is spring-loaded, is released to re-engage with the locking plate.

R Seat back position is maintained by a spring-loaded locking strut. The locking strut can be disengaged by the operation of a lever and cable assembly, the lever is located at the base of the control console. To adjust the tilt angle, the lever is operated and pressure is applied or eased on the seat back until the desired angle is achieved, then the lever is released to re-engage the lock.

R Seat pan tilt is controlled, through a similar mechanism
R to that of the seat back, by an adjoining operating lever.
R Operation of the lever and alteration to weight moment on
R the seat adjusts the tilt, and release of the lever locks
R the position.

When the inertia harness control lever on the seat base is set forward, the inertia reel is in the unlocked condition, allowing the harness to be freely withdrawn from or retracted into the reel.

With the lever set to the rear, the inertia reel is in the locked condition which allows the harness to be retracted into the reel but prevents withdrawal of the harness.

When the lever is set to the centre position, the reel is in the inertia lock condition; this allows the harness to be withdrawn slowly from the reel with gradual pressure being applied, but causing it to lock, securely holding the occupant, when any sudden forward pressure is applied.

B. Power Controls (Ref. Fig. 001)

The crashlock release lever is located on top of the console and disengages the seat lock pin when lifted. The switches in the lever are ganged together and are sprung centre-off to operate in the sense of seat horizontal movement. The lever is inter-connected with the emergency crashlock and motor drive disconnect lever.

Seat height is controlled by two switches similar to the horizontal control switches but mounted in a vertical plane on the side of the console. The switches operate in the sense of seat vertical movement.

A power on-off, (pull-on, push-off) switch with a built in

green 'power on' indicator lamp, controls the power supply to the seat; this switch is located on the rear of the control console. Associated electrical components are located on the relay panel fitted to the outboard (right-hand) side of the seat.

C. Functional Description (Ref. Fig.002 and 003)

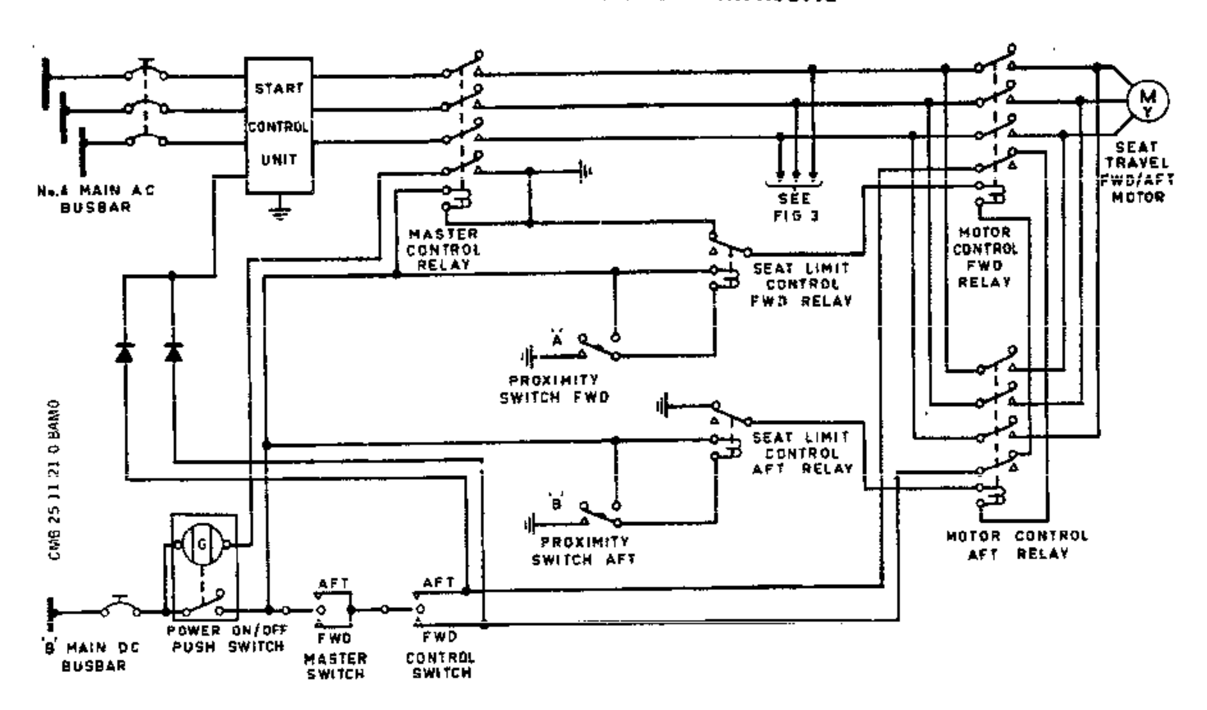
R The seat control circuits are powered by a 28 V d.c. supply via the power on-off switch on the seat control console; pulling this switch energizes the master control relay thus arming the system with a three-phase a.c. supply for driving the seat forward/aft and up/down. Power on is confirmed by the illumination of the indicator lamp.

When TRACK or HEIGHT master and control switches are operated one of the three phases supplying the drive motors is momentarily reduced in voltage thus ensuring a smooth
R start before reaching the normal rate of travel of 2 in
R (50 mm)/sec horizontal, 0.75 in (19 mm)/sec vertically.
This reduction is achieved by a 28V d.c. signal passing to the master control box which contains phase voltage reducing circuitry. The signal is passed by operation of the track or height master and control switches.

Selecting the track master and control switches to the forward position energizes the motor control forward relay which in turn powers the motor driving the seat forward to the target area of the forward proximity switch. With this switch in the target area internal circuitry causes the switch contact to close thereby energizing the seat limit control relay. This in turn de-energizing the motor control forward relay and the seat forward travel ceases.

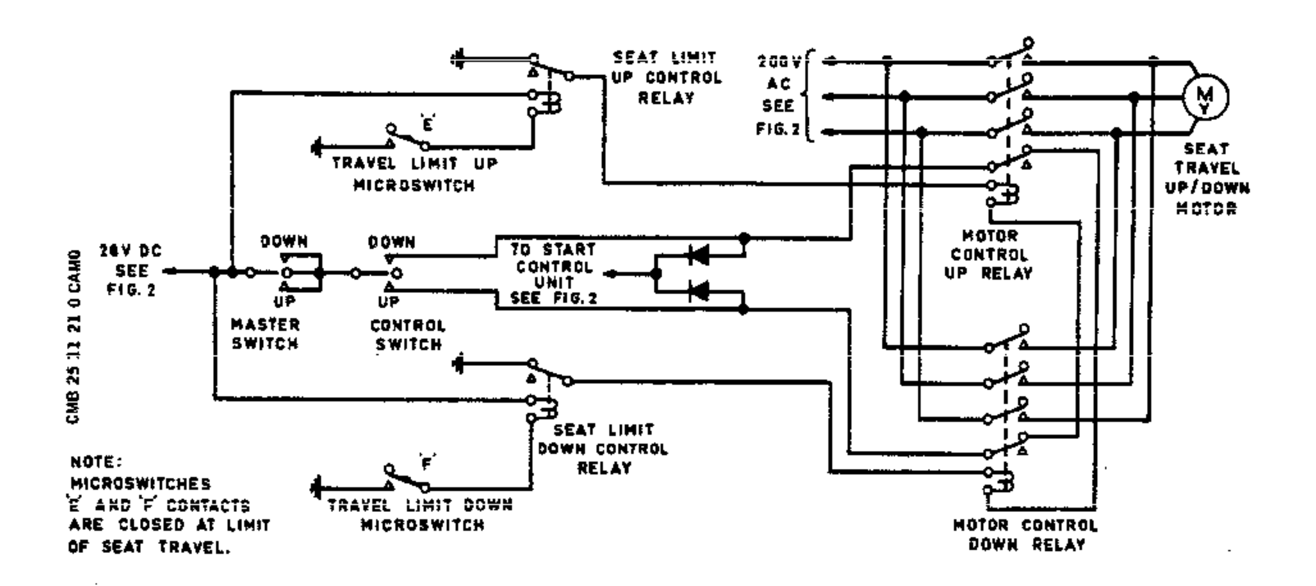
Selecting the track master and control switches to the aft position energizes the motor control aft relay which in turn powers the motor driving the seat aft to the target area of the aft proximity switch. With this switch in the target area the internal circuitry closes the switch contact thereby energizing the seat limit control relay, this in turn de-energizes the motor control aft relay and the seat aft travel ceases.

Selecting both height master and control switches to the up position energizes the motor control up relay which connects the supply to the up/down drive motor. The seat is driven upward until it closes the up travel limit microswitch. This energizes the seat limit control up relay which in turn de-energizes the motor control up relay disconnecting the motor supply and stopping the upward movement of the seat.



Fwd/Aft Seat Control
Figure 002

Selecting both height master and control switches to the down position energizes the motor control down relay thus connecting the supply to the motor. The seat is driven downwards until it closes the down travel limit microswitch. This energizes the motor control down relay. The motor supply is then cut-off and the downward movement of the seat stops.



Up/Down Seat Control
Figure 003

SECOND PILOT'S SEAT ASSEMBLY - TROUBLE SHOOTING

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

CAUTION: OBSERVE THE OPERATING LIMITATIONS GIVEN ON THE LABEL ON THE SIDE OF THE SEAT CONTROL CONSOLE.

1. General

Faults are dealt with on a probability basis and identified as a result of testing.

A defect can be isolated with the aid of trouble shooting procedures (Ref. para.3), and traced through OK and NOT OK paths to the appropriate charts or other specified rectification action as may be necessary. If a defect occurs, perform the appropriate rectification action, then repeat the operation at which the defect was encountered, to ensure that the operation is OK.

Bracketed numbers in the procedures and charts indicate items on the component identification table (Ref. Table 101). The table provides information, including component location, required for rectification. Each chart specifies any ground equipment required for that particular task.

All procedures dealing with trouble shooting are based on the assumption that electrical wiring is serviceable, and that electrical power is available, unless otherwise stated. If the fault is not rectified, check the wiring in accordance with the Wiring Diagram Manual (Ref. Table 101).

R NOTE: Malfunctioning diodes are treated as wiring faults.

2. Preparation

A. Ensure that the appropriate circuit breakers are set (Ref. Table 101).

B. Make available electrical ground power (Ref. 24-41-00).

R 3. Trouble Shooting

```
R      *****************************************
R   A.*Prepare to trouble shoot (ref. para. 2)*
R     *Set power switch (3), on seat console  *
R     *to "ON" - check green indicator (3), in*
R     *switch knob, illuminates. If circuit   *
R     *breakers (1),(2) persist in tripping - *
R     *Chart 101.                             *
R     *****************************************
R           ||             |
R           ||             |          ----------------------------------
R           OK             --NOT OK -|If green indicator (3) fails to |
R           ||                        |illuminate - Chart 102.         |
R           ||                        ----------------------------------
R           ||
R     *****************************************
R   B.*Lift emergency crashlock lever; check  *
R     *manually that seat moves easily over   *
R     *its full travel.                       *
R     *****************************************
R           ||             |
R           ||             |          ----------------------------------
R           OK             --NOT OK--|Chart 103.                      |
R           ||                        ----------------------------------
R           ||
R   C.*****************************************
R     *Lift crashlock release handle and      *
R     *operate forward/aft tracking switches  *
R     *(4/5) - check seat moves to, and is    *
R     *stopped by, forward and aft limit      *
R     *switches (19), (20).                   *
R     *****************************************
R           ||             |
R           ||             |          ----------------------------------
R           OK             --NOT OK--|1. Seat fails to move either    |
R           ||                        |   forward or aft - Chart 104.  |
R           ||                        |2. Seat moves forward but not   |
R           ||                        |   aft or aft but not forward - |
R           ||                        |   Chart 105.                   |
R           ||                        |3. Limit switches (19), (20)    |
R           ||                        |   fail to switch off motor (13)|
R           ||                        |   - Chart 106.                 |
R           ||                        |4. Seat starts with high rate of|
R           ||                        |   acceleration or moves slowly |
R           ||                        |   or not at all - check for    |
R           ||                        |   correct functioning of start |
R           ||                        |   control unit (23), diode (24)|
R           ||                        |   or cb (1).                   |
R           ||                        ----------------------------------
R           ||
```

```
R     ****************************************
R   D.*Pull manual lift handle from stowage   *
R     *and turn it in both directions,to fully*
R     *raise and lower seat.                  *
R     ****************************************
R          ||            |
R          ||            |           ---------------------------------
R          OK            --NOT OK--|Check drive mechanism to ensure |
R          ||                      |nothing has seized or broken.   |
R          ||                      |Check telescopic tubes for      |
R          ||                      |evidence of damage causing      |
R          ||                      |seizure. Rectify and retest.    |
R          ||                       ---------------------------------
R          ||
R     ****************************************
R   E.*Operate height switches (6/7) - check*
R     *seat moves up and down,and is stopped*
R     *by limit switches (21),(22).         *
R     ***************************************
R          ||            |
R          ||            |           ---------------------------------
R          OK            --NOT OK--|1. Seat fails to move up or down|
R          ||                      |   under power - Chart 107.     |
R          ||                      |2. Seat moves up but not down or|
R          ||                      |   down but not up - Chart 108. |
R          ||                      |3. Limit switches (21), (22)    |
R          ||                      |   fail to switch off motor (14)|
R          ||                      |   - Chart 109.                 |
R          ||                       ---------------------------------
R          ||
R     ****************************************
R   F.*Lift seat pan tilt lever - check seat  *
R     *pan tilts through 10 deg.and locks at  *
R     *intermediate positions.                *
R     ****************************************
R          ||            |
R          ||            |           ---------------------------------
R          OK            --NOT OK--|Seat fails to tilt - Chart 110. |
R          ||                       ---------------------------------
R          ||
R     ****************************************
R   G.*Lift seat back tilt lever - check seat *
R     *back tilts through 16 1/2 deg.and locks*
R     *at intermediate positions.             *
R     ****************************************
R          ||            |
R          ||            |           ---------------------------------
R          OK            --NOT OK--|Seat back fails to tilt -       |
R          ||                      |Chart 111                       |
R          ||                       ---------------------------------
R          ||
```

```
   ****************************************
 H.*Set inertia harness control lever to  *
   *"111".Release lever, check that it    *
   *returns to "1", that harness can be   *
   *slowly withdrawn from reel, that if   *
   *harness is released it will be        *
   *automatically taken up by the reel.   *
   *Withdraw strap from reel with sudden   *
   *jerk - check movement blocked by reel *
   *and when released strap makes audible *
   *rattling sound as it winds back on reel*
   ****************************************
         ||              |
         ||              |           ----------------------------------
         OK              --NOT OK--|Lever fails to return to "1",    |
         ||                        |reel fails to release or lock,   |
         ||                        |wind back after jerk is not      |
         ||                        |accompanied by rattling sound -  |
         ||                        |check route of control cable or  |
         ||                        |renew reel assembly.             |
         ||                        ----------------------------------
         ||                                          |        |
   ****************************************          |        |
 J.*Move lever to "111" and release it -  *          |        |
   *check that lever returns to "1", and  *          |        |
   *strap moves freely in both directions *          |        |
   ****************************************          |        |
         ||              |                           |        |
         OK              --NOT OK---------------------        |
         ||                                                   |
   ****************************************                   |
 K.*Pull out part of strap and hold it    *                   |
   *still, move lever to "11" = check     *                   |
   *forward movement of strap is blocked  *                   |
   *and when released, strap winds on reel *                  |
   *making audible rattling sound.        *                   |
   ****************************************                   |
                         |                                    |
                         --NOT OK------------------------------
```

CIRCUIT BREAKER (1), (2) PERSISTS IN TRIPPING

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V, 3PH;28V DC	-
CIRCUIT BREAKER SAFETY CLIPS	-

Set switches (3). (4/5) and (6/7) to "OFF" position

→ Check if circuit breaker still trips.

- YES → 1. Check for faulty cb - renew if necessary
  2. Check for earthed wiring - rectify.
- NO → Set switches progressively to operating position until cb trips - disconnect equipment in faulty circuit in sequence and check each time if fault is cleared.
  - NO → Check wiring for phase to phase short or short to earth.

Chart 101

GREEN INDICATOR FAILS TO ILLUMINATE (3).

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V, 3PH; 28V DC	-
CIRCUIT BREAKER SAFETY CLIPS.	-

Operate fwd/aft tracking switches (4/5) in each direction to prove power 'ON'

- YES → Renew indicator (3) filament - if still no indication, check continuity between pins 1D of TB M565 and 9B of TB M566 - if open-circuit, either contact D1/D2 in master relay (8), or wiring is defective.
- NO → If no 28V dc at terminal 2 of cb (2) - renew cb.
  - YES → Check for 28V to earth at 2D of TB M565. If yes, master control relay (8) or wiring is defective.
    - NO → Power 'ON' switch (3) wiring is defective.

Chart 102

```
********************************
*SEAT MANUAL FWD/AFT MOVEMENT *
*UNSATISFACTORY.              *
********************************

------------------------------       --------------------------------
|Lift emergency crashlock     |      |1. Inspect rails for damage.  |
|release lever and check if   |-YES-|2. Inspect rails and drive     |
|seat moves fwd/aft at all.   |      |   rack and pinion for debris|
------------------------------       |3. Check mounting roller      |
              |                      |   clearance.                 |
              |                      |4. Check that tops of rails   |
              |                      |   are level and are all in   |
              NO                     |   the same plane.            |
              |                      |5. Check that the claws do    |
              |                      |   not bind on the rail edges|
              |                      --------------------------------
              |
------------------------------       --------------------------------
|Check crashlock pin has      |-YES-|Check that power drive         |
|withdrawn from hole in rail. |     |disconnect has separated       |
------------------------------      |drive.                         |
                 |                  --------------------------------
                 |                           |
                 NO                          NO
                 |                           |
            --------------------------------
            |Check for broken or badly     |
            |adjusted control cable or     |
            |operating mechanism.          |
            |Rectify and retest.           |
            --------------------------------
```

Chart 103

```
*******************************
*SEAT FAILS TO MOVE EITHER FWD*
*OR AFT UNDER POWER.          *
*******************************
```

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES 200V, 3PH;28V DC	-
CIRCUIT BREAKER SAFETY CLIPS	-

WARNING: DO NOT ALLOW THE CLUTCH TO SLIP UNNECESSARILY.

```
-------------       -------------       -------------       -------------
|Check if    |      |Check if    |      |Check if    |      |Chart 103   |
|motor (13)  |-YES-|drive       |-YES-|handle      |-YES-|to ensure   |
|operates    |      |clutch      |      |lifts       |      |free move-  |
|when con-   |      |slips as    |      |crashlock   |      |ment of     |
|trol switch|      |motor is    |      |pins clear  |      |seat along  |
|(4/5) is    |      |running.    |      |of hole in  |      |rails.      |
|pressed     |      -------------       |rail.       |      -------------
-------------                           -------------
      |
      NO
      |
-------------       -------------
|Check 200V,|       |Check for   |
|3Ph,across |-YES-|open circ-  |
|pins 3B,4B |       |uit wiring  |
|and 5B on  |       |or renew    |
|TB M567    |       |motor (13)  |
-------------       -------------
      |
      NO
      |
-------------
|Check for   |
|open circ-  |
|uit dc wir-|
|ing and for|
|malfunction|
|of switches|
|(4/5)-rect-|
|ify as nec-|
|essary      |
-------------
```

Chart 104

SEAT FAILS TO MOVE FWD OR SEAT FAILS TO MOVE AFT.

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V, 3PH;28V DC	-
CIRCUIT BREAKER SAFETY CLIPS.	-

Check 28V dc across pins X1/X2 of motor fwd control relay (9) or aft relay (10)
- YES → Check for open circuit wiring or renew relay (9) or (10). (1)
- NO ↓

Check for 28V dc to earth at X1 of relay (9) or (10)
- YES → Check for EARTH polarity at terminal 8 of seat limit fwd relay (15) or aft relay (16)
  - YES → Check for 28V dc across 3 and 7 of relay (15) or (16)
    - YES → Check fwd proximity switches (19)or (20) for correct mechanical function
    - NO → Check for open circuit wiring or renew relay (15) or (16).
  - NO → Check for open circuit wiring
- NO ↓

Chart 105 (Sheet 1 of 2)

```
R         |
R   -------------       -------------
R   |Check for  |       |Check link |
R   |28V dc at  |-YES-|to relay    |
R   |D2 of relay|       |(9) or (10)|
R   |(10) or (9)|       |or, renew  |
R   -------------       |relay (10) |
R         |             |or (9).    |
R         NO            -------------
R         |
R   -------------       -------------
R   |Check for  |       |Check for  |
R   |28V dc to  |-YES-|open cir-   |
R   |earth at   |       |cuit wiring|
R   |pin D of TB|       |to pin D2  |
R   |M566/6 (or |       |of relay   |
R   |pin A of TB|       |(10) or    |
R   |M566/8     |       |relay (9)  |
R   -------------       -------------
R         |
R         NO
R         |
R   -------------
R   |Check for  |
R   |open cir-  |
R   |cuit wiring|
R   |or renew   |
R   |ganged     |
R   |switches   |
R   |(4/5) as   |
R   |necessary. |
R   -------------
```

R Chart 105 (Sheet 2 of 2)

```
R  *******************************               ------------------------------
R  *PROXIMITY SWITCH (19) OR (20)*               |GROUND EQUIPMENT REQUIRED    |
R  *FAILS TO SWITCH OFF FWD/AFT  *               ------------------------------
R  *MOTOR (13).                  *               |DESCRIPTION         PART NO. |
R  *******************************               ------------------------------
R                                                |POWER SUPPLIES:              |
R                                                |200V, 3PH;28V DC         -   |
R                                                |CIRCUIT BREAKER              |
R                                                |SAFETY CLIPS             -   |
R                                                ------------------------------

R  -------------------       -------------------       -------------------
R  |With seat/switch |       |Remove seat limit|       |Renew relay (15) |
R  |(19) or (20) over|-YES-|control relay    |-YES-|or (16).         |
R  |target and con-  |       |(15) or (16) -   |       -------------------
R  |trol switch 4/5  |       |check for 28V dc |       -------------------
R  |"OFF" check for  |       |across relay base|-NO--|Possible open-   |
R  |earth potential  |       |pins 3 and 7.    |       |circuit - refer  |
R  |at pin 4 of TB   |       -------------------       |to Wiring Diagram|
R  |M572 (or pin 5 of|                                 -------------------
R  |TB M600.         |
R  -------------------
R          |
R          NO
R          |
R  -------------------       -------------------
R  |Check for 28V dc |       |Renew proximity  |
R  |to earth at pin 1|-YES-|limit switch (19)|
R  |of TB M572.      |       |or (20).         |
R  -------------------       -------------------
R          |
R          NO
R          |
R  -------------------
R  |Possible open-   |
R  |circuit - refer  |
R  |to Wiring Diagram|
R  -------------------
```

R Chart 106

SEAT FAILS TO MOVE UP OR DOWN UNDER POWER

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V, 3PH;28V DC.	-
CIRCUIT BREAKER SAFETY CLIPS.	-

WARNING: DO NOT ALLOW CLUTCH TO SLIP UNNECESSARILY.

Operate switches on side of console and check if motor operates.

- YES → If motor runs, but seat does not move up or down -
  1. Check drive mechanism to ensure nothing has seized or broken. Check telescopic tubes for evidence of damage causing seizure
  2. Renew motor (14) to ensure satisfactory motor output clutch setting.

  Retest after each check.
- NO ↓

Check 200V,3PH,across pins 6B,7B,8B of TB M567.

- YES → Check for open circuit wiring or renew motor (14).
- NO ↓

Check for 28V dc to earth at terminal 2 of control switch (7) and terminal 2 of master switch (6).

- YES → Replace appropriate switch
- NO ↓

Check for open circuit wiring

Chart 107

SEAT MOVES DOWN BUT NOT UP OR UP BUT NOT DOWN

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V, 3PH;28V DC	-
CIRCUIT BREAKER SAFETY CLIPS	-

With control switch (6/7) 'UP' (or 'DOWN')-remove motor control relay (11)(or 12) -check 28V dc across relay base pins X1/X2

-YES- Refit relay (11) (or 12) - check 200V ac across pins B6/B7/B8 of TB M567

-NO-- Renew up relay (11) or down relay (12)

NO (from first box) → Check 28V dc to earth at pin X1 of up relay (11) (or down relay 12)

-YES- Check earth potential at pin 5 (or 3) of TB M572

-YES- Adjust striker/ switch or renew switch (21) or (22)

NO (from "Check earth potential") → Check for open-circuit wiring or renew limit control relay (17) or (18)

NO (from "Check 28V dc to earth") → continued on sheet 2

Chart 108 (Sheet 1 of 2)

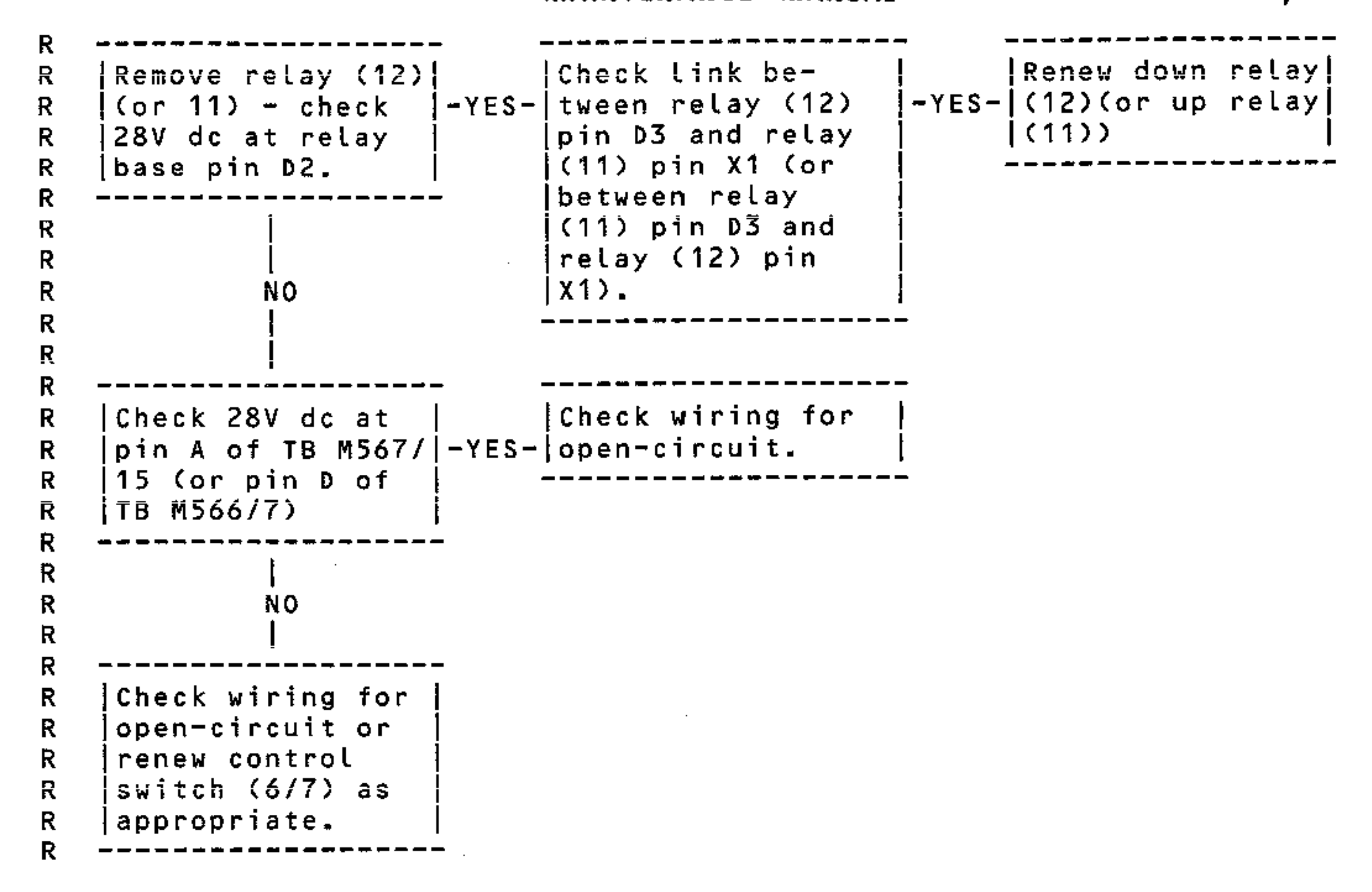


Chart 108 (Sheet 2 of 2)

LIMIT SWITCHES (21/22) FAIL TO SWITCH OFF UP/DOWN MOTOR (1A).

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V, 3PH; 28V DC CIRCUIT BREAKER SAFETY CLIPS	-

With seat up (or down), micro-switch (21)(or 22) depressed and control switch (6/7)'OFF' - check earth potential at pin 5 (or 3) of TB M572.

- YES → Remove limit control relay up (17)(or down relay(18))- if 28V dc across relay base pins 3 and 7 - renew relay (17) or (18).
  - NO → Check wiring for open circuit
- NO → Renew limit microswitch up (21)(or down (22))

Chart 109

```
R   ********************************
R   *SEAT PAN FAILS TO ADJUST IN   *
R   *ANGLE OF TILT.                *
R   ********************************

R   -------------------------------     -------------------------------
R   |Lift seat pan tilt mechanism |     |Check lever/cable for damage |
R   |release lever and check if   |-YES-|rectify/renew as necessary - |
R   |lever movement is obstructed |     |retest.                      |
R   -------------------------------     -------------------------------
R                  |
R                  NO
R                  |
R   -------------------------------     -------------------------------
R   |Disconnect cable from adjust-|     |Ensure that adequate packing |
R   |er strut and depress seat pan|-YES-|is fitted under cable seating|
R   |to check if movement is      |     |to ensure spigot withdrawal  |
R   |unobstructed.                |     |from strut lock nut when     |
R   -------------------------------     |handle is fully lifted.      |
R                  |                    |Reconnect cable and retest.  |
R                  NO                   -------------------------------
R                  |
R   -------------------------------     -------------------------------
R   |Disconnect upper end of seat |     |Check all bearings in seat   |
R   |pan adjuster strut from seat |-YES-|pan linkage for seizure.     |
R   |pan support linkage and check|     |Renew as necessary, reconnect|
R   |if movement of pan is        |     |linkage and retest.          |
R   |obstructed.                  |     -------------------------------
R   -------------------------------
```

R Chart 110

```
R   ******************************
R   *SEAT BACK FAILS TO ADJUST IN *
R   *ANGLE OF TILT                *
R   ******************************

R   ------------------------------       ------------------------------
R   |Lift seat back tilt mechanism|      |Check lever/cable for damage |
R   |release lever and check if   |-YES-|rectify/renew as necessary - |
R   |lever movement is obstructed.|      |retest.                      |
R   ------------------------------       ------------------------------
R                 |
R                 NO
R                 |
R   ------------------------------       ------------------------------
R   |Disconnect cable from adjust-|      |Ensure that adequate packing |
R   |er strut and move seat back  |-YES-|is fitted under cable seating|
R   |to check if movement is      |      |to ensure spigot withdrawal  |
R   |unobstructed.                |      |from strut lock nut when     |
R   ------------------------------       |handle is fully lifted.      |
R                 |                      |Reconnect cable and retest.  |
R                 NO                     ------------------------------
R                 |
R   ------------------------------       ------------------------------
R   |Disconnect upper end of seat |      |Check all bearings in seat   |
R   |back adjuster strut from seat|-YES-|back linkage for seizure.    |
R   |back support linkage and     |      |Renew as necessary, reconnect|
R   |check is movement is         |      |and retest.                  |
R   |obstructed                   |      ------------------------------
R   ------------------------------
```

R Chart 111

ITEM NO. AND DESCRIPTION	ACCESS PANEL	PANEL/ ZONE	EQUIP. IDENT.	POSITION	MANUAL REF. MAINT. TOPIC	WIRING DIAGRAM
(1) Circuit breaker 200V, 3Ph.	-	14-216	M251	B3, 3CM Racking	24-50-00 R/1	25-11-21
(2) Circuit breaker 28V, dc	-	15-216	M254	G6, 3CM Racking	24-50-00 R/I	
(3) Power "ON" Switch	-	7-212-2	M502	Seat Console	25-11-21	
(4) Master (FWD/AFT)	-	7-212-2	M511	Seat Console	25-11-21	
(5) Control switch (FWD/AFT)	-	7-212-2	M513	Seat Console	25-11-21	
(6) Master switch (UP/DOWN)	-	7-212-2	M512	Seat Console	25-11-21	
(7) Control switch (UP/DOWN)	-	7-212-2	M514	Seat Console	25-11-21	
(8) Master control relay	-	7-212-1	M535	Seat base panel	25-11-21	
MOTOR CONTROL						
(9) FWD relay	-	7-212-1	M536	Seat base panel	25-11-21	
(10)AFT relay	-	7-212-1	M537	Seat base panel	25-11-21	
(11)UP relay	-	7-212-1	M538	Seat base panel	25-11-21	
(12)DOWN relay	-	7-212-1	M539	Seat base panel	25-11-21	
SEAT TRAVEL MOTOR						
(13)FWD/AFT	-	7-212	M555	Seat base	25-11-21	
(14)UP/DOWN	-	7-212	M556	Seat base	25-11-21	
SEAT LIMIT CONTROL						
(15)FWD relay	-	7-212-1	M547	Seat base panel	25-11-21	
(16)AFT relay	-	7-212-1	M548	Seat base panel	25-11-21	
(17)UP relay	-	7-212-1	M549	Seat base panel	25-11-21	
(18) Down relay	-	7-212-1	M550	Seat base	25-11-21	

ITEM NO. AND DESCRIPTION	ACCESS PANEL	PANEL/ ZONE	EQUIP. IDENT.	POSITION	MANUAL REF. MAINT. TOPIC	WIRING DIAGRAM
				panel		
(19) Proximity switch (FWD)	-	7-212	M527	Seat base	25-11-21	
(20) Proximity switch (AFT)	-	7-212	M526	Seat base	25-11-21	
(21) Micro-switch (UP)	-	7-212	M528	Seat base	25-11-21	
(22) Micro-switch (DOWN)	-	7-212	M529	Seat base	25-11-21	
(23) Start control unit	-	18-216	M593	Seat base	25-11-21	
(24) Blocking diodes	-	7-212-1	M661 M662 M663 M664	Seat base panel	25-11-21	

Component Identification
Table 101

R

CO-PILOT'S SEAT ASSEMBLY - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

CAUTION: THE SEAT BASE PROTECTIVE PADS MUST BE FITTED TO THE SEAT MOUNTING SPIGOTS IMMEDIATELY AFTER REMOVAL OF THE SEAT FROM THE AIRCRAFT AND UNTIL SUBSEQUENT INSTALLATION SO AFFORDING PROTECTION TO THE GEARS AND SWITCHES PROJECTING BELOW THE SEAT BASE.

ENSURE THAT SNAGS OR PULLS DO NOT OCCUR ON CABLES ATTACHED TO THE SEATS.

1. General

The seat is mounted on radius arms and rollers fitted to the curved rails on the right side of the flight compartment. Movement of the seat fore-and-aft is powered by an electric motor in the seat base driving a pinion which engages with a rack between the rails. The power supply connection to the seat is located at the rear outboard side of the seat base.

Removal and installation of the seat will require no rigging adjustment if the same seat is re-installed. If, however, a new seat is fitted or a new rack assembly is fitted to the floor, the rack assembly must be adjusted to the seat. Because of the inaccessibility of the parts on the aircraft, this will require removal of the floor panel to which the seat is secured to permit the adjustment to be made on the bench.

This topic also describes the removal and installation procedures for the electrical components of the co-pilot's seat.

2. Co-pilot's Seat Assembly

A. Equipment and Materials

DESCRIPTION	PART NO.
Seat stand	E925008000
Circuit breaker safety clips	-
Torque screwdriver, 0-15 lbf in (0-0.170 mdaN) range	-

DESCRIPTION	PART NO.
Torque spanner 0-30 lbf in (0-0.339 mdaN) range	-
Lockwire, non-corrodible, 0.028 in (0.71 mm) dia	-
Lubricating compound Never-Seez N.S. Special (Ref. 20-30-00, No.62)	-

B. Prepare to Remove Seat

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
2ND PLT SEAT SUP	14-216	M251	F17
2ND PLT SEAT CONT	15-216	M254	C22

(2) Disconnect the power supply connection to the seat.

C. Remove Seat (Ref. Fig. 401)

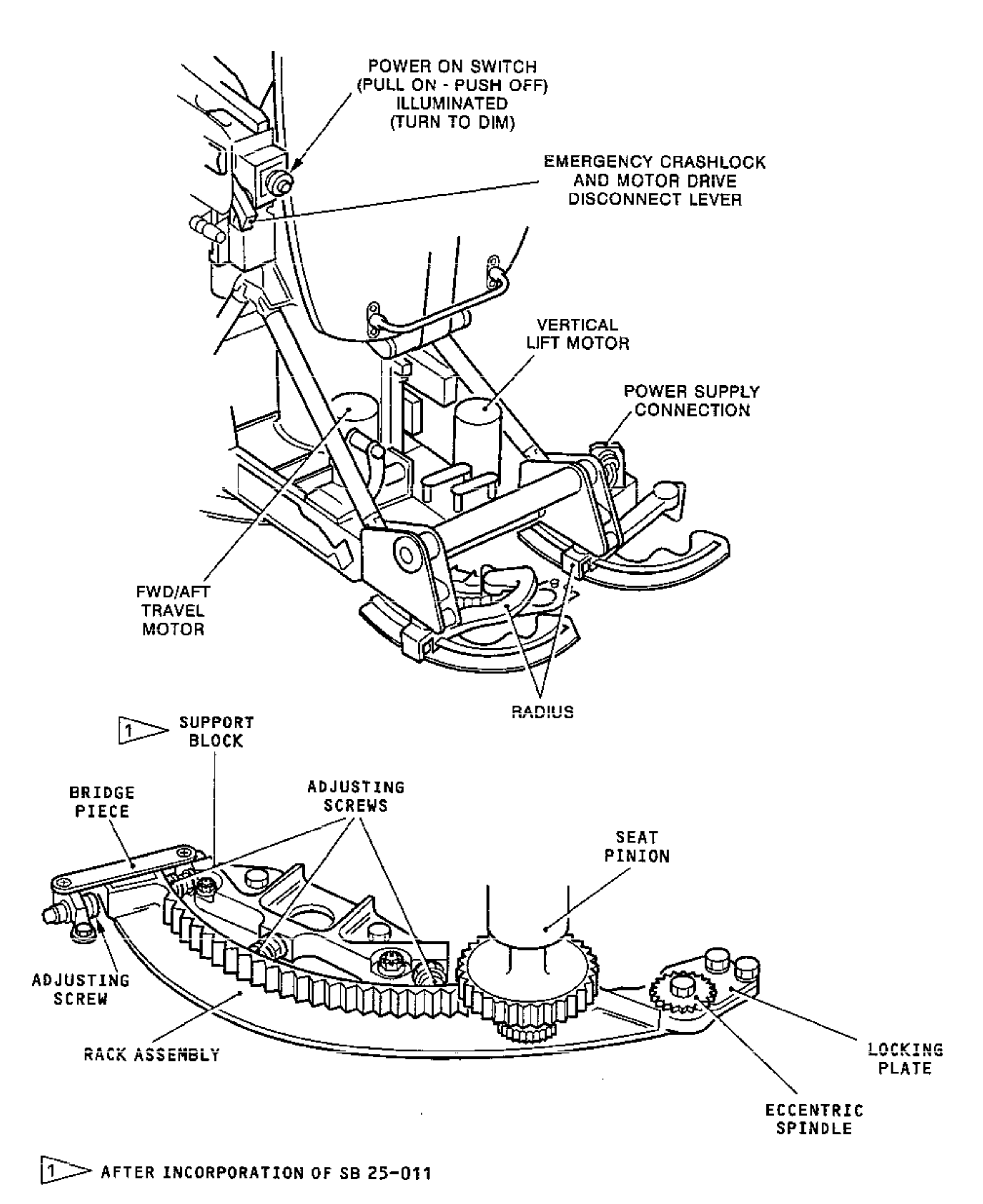
(1) Lift the emergency crashlock and motor drive disconnect lever and move the seat to its rearmost position. Secure the lever in the raised position.

(2) At each spigot position on the radius arms, remove the bolt and washer securing the spigot keeper plates and remove the plates.

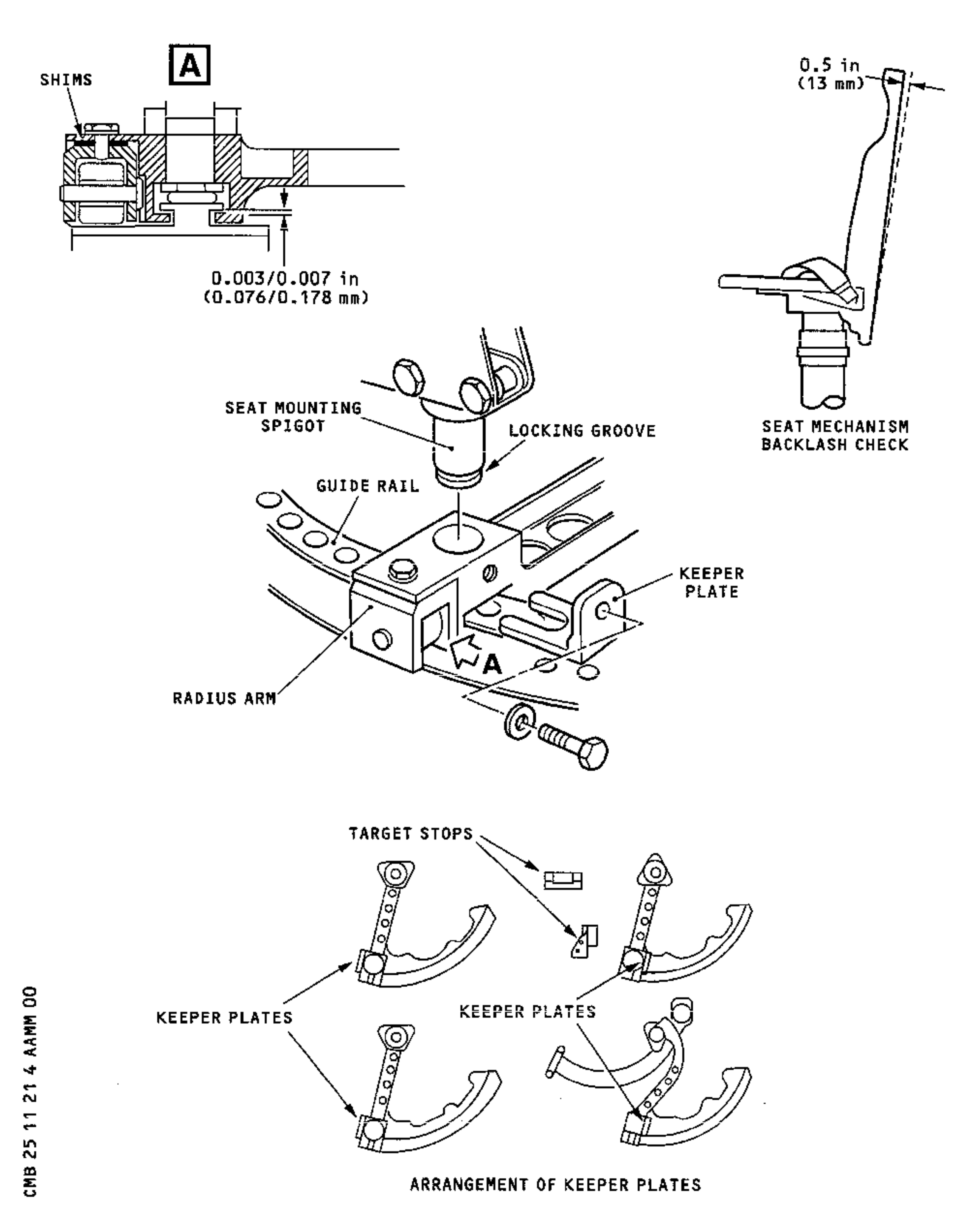
(3) Lift the seat from its mounting, taking care to avoid damage caused during disengagement of the spigots and drive pinion.

(4) Fit the protective pads which form part of the seat stand, and remove the seat from the aircraft.

(5) Place the seat on the seat stand.



Co-Pilot,s Seat Installation - (Sheet 1 of 2)
Figure 401



CMB 25 11 21 4 AAMM 00

Co-Pilot's Seat Installation - (Sheet 2 of 2)
Figure 401

D. Prepare to Install Seat (Ref. Fig. 401)

NOTE: If a new seat is being fitted or a new rack assembly has been fitted to the floor, carry out the following operations.

(1) Remove the floor panel to which the seat is to be assembled (Ref. 53-21-11, Removal/Installation) and remove it to the bench so that the necessary adjustments to the rack can be effected.

(2) Ensure that all parts are clean and free from foreign matter.

(3) Move the radius arms over the full length of the guide rails checking that the clearance between the tracking rollers and the rail is between 0.003 to 0.007 in (0.076 to 0.178 mm). If necessary, adjust with shims between the roller cage and arm. Tighten the securing bolt and lock it with wire.

(4) Fit the seat to the floor panel:

(a) Remove the cover from the seat drive pinion.

(b) Ensure that the emergency crashlock and motor drive disconnect lever is locked in the 'up' position.

(c) Remove the locking plate from the end of the rack and slacken the bolt securing the eccentric spindle.

(d) By use of the spindle and adjusting screws, move the rack as far out of the line of engagement with the pinion as possible to avoid the rack and pinion fouling each other when the seat is fitted.

(e) Place the radius arms in the fully rearward position.

(f) Remove the seat from the stand and fit it by its spigots to the radius arms.

(g) Fit the keeper plates to the spigot mountings on the radius arms and secure with bolts and washers.

**ON A/C 002-002,

(5) Gently traverse the seat and adjust the rack to the seat pinion by rotating the eccentric spindle and by adjustment of the screws at either side of the strap. Backlash is to be as little as possible.

R

After SB 25-011 For A/C 002-002,

(5) Gently traverse the seat and adjust the rack to the seat pinion by rotating the eccentric spindle and by use of the adjusting screws so that backlash between pinion and rack measured at the PCD of the large gearwheel of the seat pinion is between 0.030 and 0.050 in (0.76 and 1.27 mm) at the start, finish and intermediate positions.

R

(6) On completion of adjustment:

(a) Ensure that the rack contacts the floor panel.

(b) Ensure that the adjusting screws abut the rack and that their locknuts are tight.

(c) Fit the locking plate and torque tighten the two attachment bolts to between 40 and 45 lbf in (0.452 and 0.508 mdaN) and lock with wire.

(d) Tighten the eccentric spindle bolt to between 70 and 80 lbf in (0.791 and 0.904 mdaN) and lock with wire.

(7) Carefully remove the seat from the floor panel, fit the protective pads to the seat and place the seat on the seat stand.

(8) Refit the cover over the seat pinion.

(9) Refit the floor panel in the aircraft (Ref. 53-21-11, Removal/Installation).

E. Install Seat (Ref. Fig. 401)

(1) Remove the seat from its stand and ensure protective pads are fitted to seat spigots.

(2) Ensure emergency crashlock and motor drive disconnect lever is lashed in the up position.

(3) Move the radius arms on the seat rails to the fully aft position.

(4) Smear the radius arms around the top face of the spigot mounting holes, in the holes and also on the underside of the rail flanges with NEVER-SEEZ lubricating compound.

(5) Remove the protective pads from the seat spigots and lower the seat until the tips of the spigots just enter the holes in the respective radius arms.

(6) Engage the seat pinion assembly in the rack, at the same time completing the lowering of the seat on to its mountings.

(7) Fit the keeper plates to the spigot mountings on the radius arms and secure with bolts and washers. Torque load the bolts to between 12 and 15 lbf in (0.138 and 0.169 mdaN) and wire-lock.

(8) Release the emergency crashlock and motor disconnect lever and check the crashlock engagement at the various hole positions in the seat rails, ensuring that the motor drive disconnect mechanism functions correctly to give positive disengagement/engagement of the motor drive when the lever is raised and lowered.

(9) With the seat facing forward raise the seat fully. Check that the total backlash of the seat mechanism measured at the top of the seat back, does not exceed 0.50 in (12.7 mm).

(10) Connect the power supply to the seat, ensuring that the plug and receptacle mating surfaces are clean and undamaged.

(11) Remove the safety clips and reset the seat circuit breakers.

(12) Functionally test the seat (Ref. 25-11-21, Adjustment/ Test).

3. Vertical Lift Motor and Forward/Aft Motor

NOTE: The removal and installation procedures for the motors are identical.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque screwdriver, 0-15 lbf in (0-0.170 mdaN)	-
Contact insertion/extraction tool (M15570-22-1)	-
'Kimwipe' tissues	-
Jointing compound, Celloseal QH, (Ref. 20-30-00, No.370)	-
Cleaning solvent, trichlorethylene (Ref. 20-30-00, No.469)	-
Small bristle brush	-

B. Prepare to Remove Motor (Ref. Fig. 402)

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
2ND PLT SEAT SUP	14-216	M251	F17
2ND PLT SEAT CONT	15-216	M254	C22

(2) Obtain maximum working space to remove motors, as follows:

(a) Lift the emergency crashlock and motor drive disconnect lever and move the seat to its forward position.

(b) Locate the seat height manual adjustment cranked handle on the RH side of the seat, pull the handle to disengage it from the locking

plate and rotate the handle in the required direction to raise the seat. Release the handle to re-engage with the locking plate.

(3) Slacken the quick-release fasteners and remove the seat base inboard and outboard covers.

(4) Gain access to the motor by removing the five pan head screws and countersunk washers securing the pedestal rear cover. Remove the cover.

(5) Prepare a clean working area using a 'Kimwipe' tissue.

C. Remove Motor

(1) Extract the three contacts connecting the wires of the motor flying lead, from the module block (M567), using the extraction tool (Ref. WDM 20-42-18).

(2) Remove the three screws and plain washers securing the motor. Disengage the motor from the gearbox assembly.

(3) Cover the area, exposed by the removal of the motor, to protect the gearbox assembly against the ingress of debris and foreign matter.

D. Install Motor

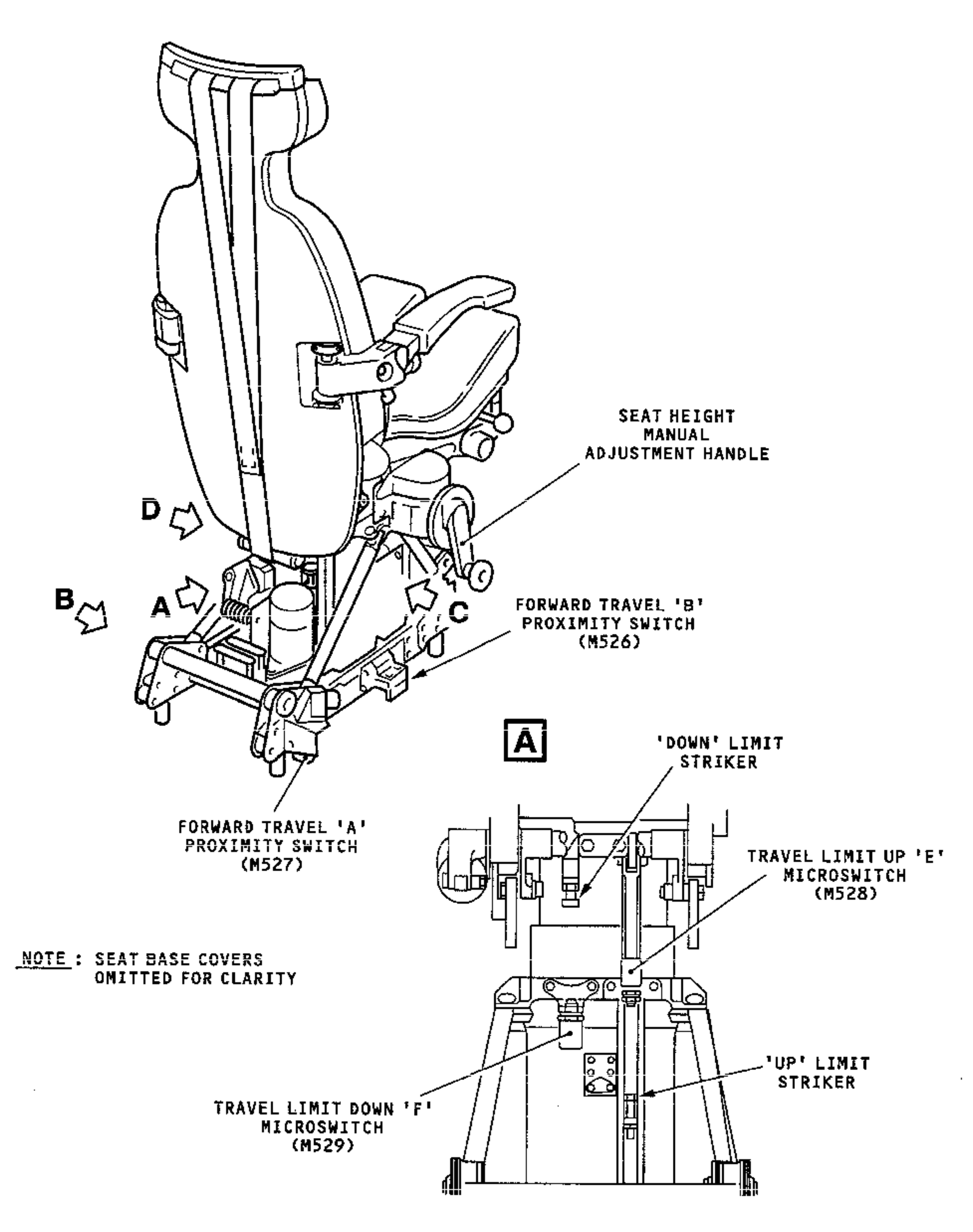
(1) Prepare a clean working area using 'Kimwipe' tissues. Remove old jointing compound from the mating faces of the motor and gearbox, using a 'Kimwipe' tissue moistened with cleaning solvent, (trichlorethylene) (Ref. 20-30-00, No.469).

(2) Brush an even film of jointing compound (Ref. 20-30-00, No.370) to the mating faces of the motor and the gearbox.

(3) Engage the motor with the gearbox assembly. Secure the motor with three screws and plain washers. Torque-tighten each screw to 14 lbf in (0.158 mdaN).

(4) Using the insertion tool (Ref. WDM 20-42-15), insert the three contacts connecting the wires of the flying lead, into the relevant sockets of the module block (M567), in accordance with the appropriate Wiring Diagram and wire identification.

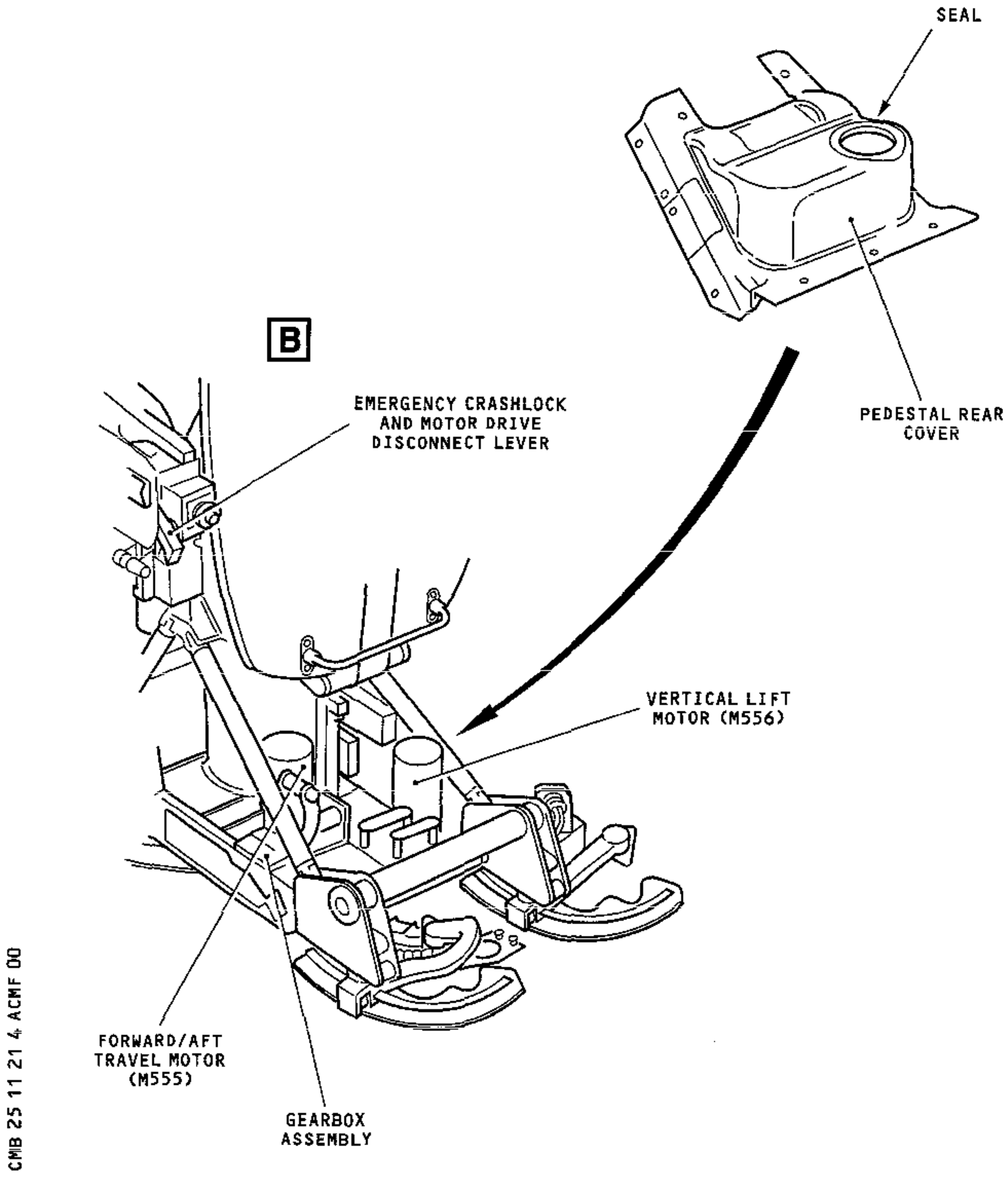
(5) Check the security of the contacts in the sockets by giving a slight pull on the wires.



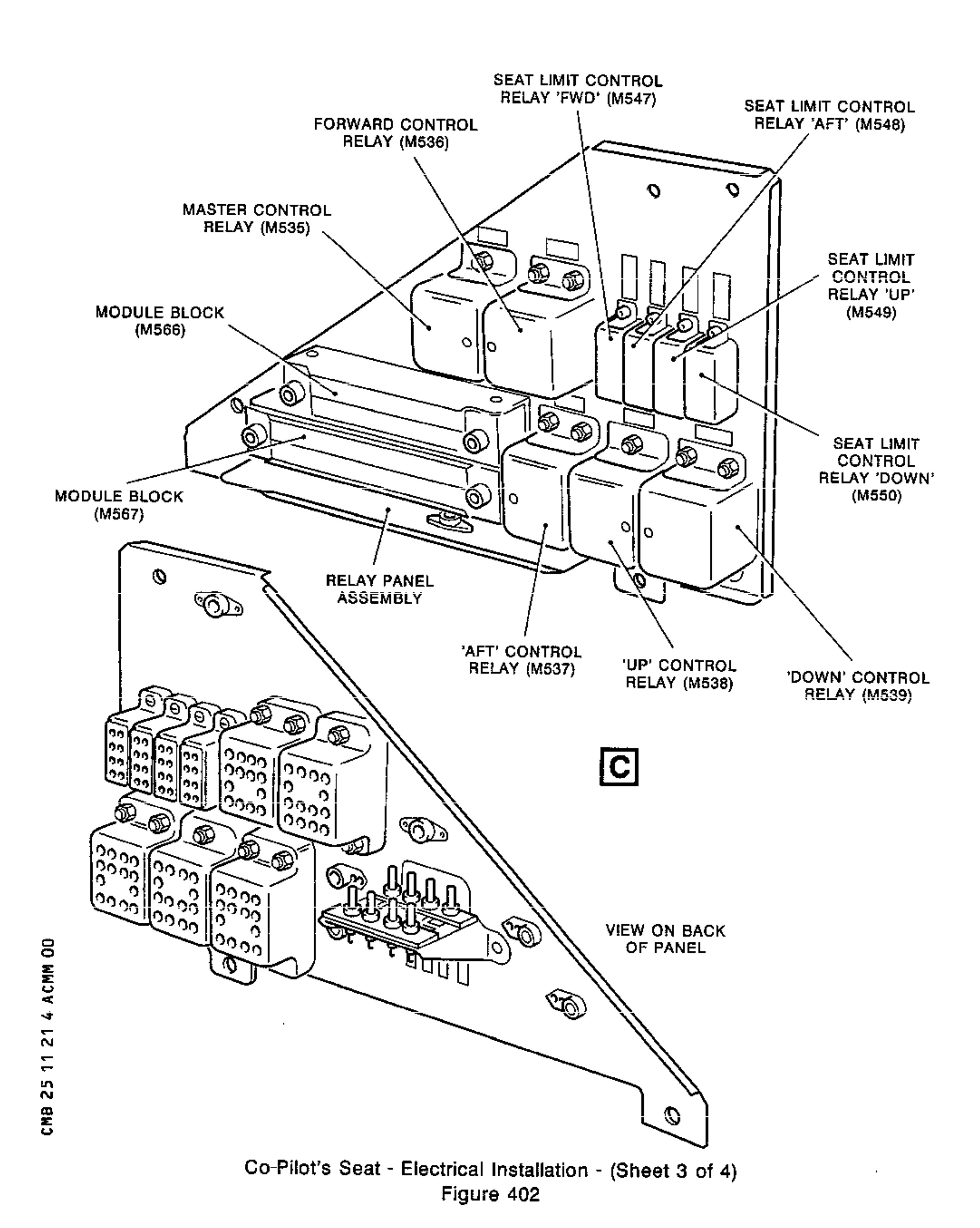
PRINTED IN ENGLAND

CMB 25 11 21 4 ACMA 00

Co-Pilot's Seat - Electrical Installation - (Sheet 1 of 4)
Figure 402



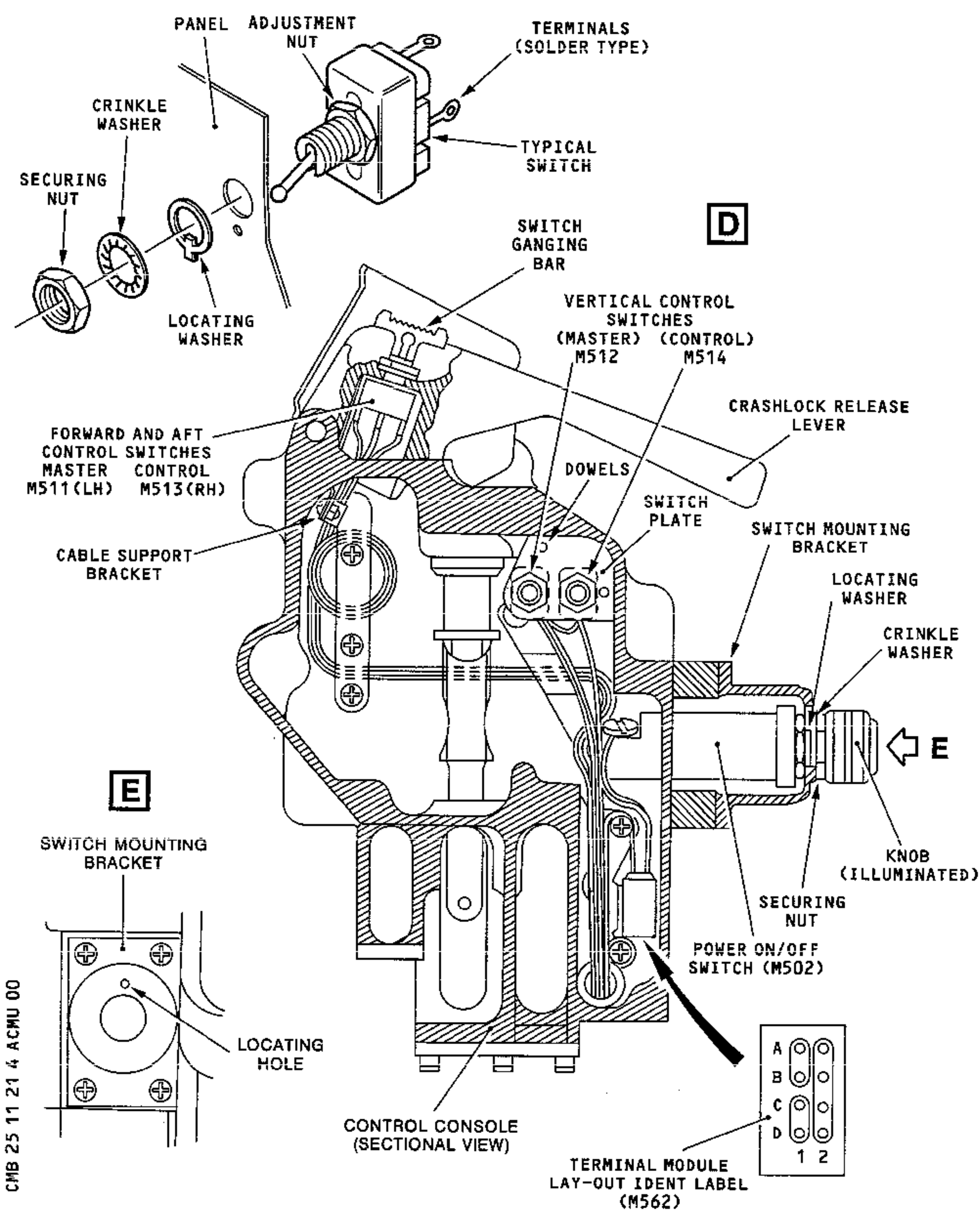
Co-Pilot's Seat - Electrical Installation - (Sheet 2 of 4)
Figure 402



CMB 25 11 21 4 ACMM 00

PRINTED IN ENGLAND

Co-Pilot's Seat - Electrical Installation - (Sheet 3 of 4)
Figure 402



Co-Pilot's - Electrical Installation - (Sheet 4 of 4)
Figure 402

(6) Visually inspect the seal of the pedestal rear cover. If the seal is damaged, proceed as follows:

WARNING: CHLORINATED SOLVENTS (LIQUID OR VAPOUR) MUST NOT BE USED.

NOTE: If a new cover is to be fitted, a new seal is bagged and tied to it and operations (c) and (d) will be necessary.

(a) Remove the seal taking care not to damage the fibre-glass cover.

(b) Remove existing cured adhesive by abrading.

NOTE: A warm air gun, operating at a temperature of between 120 deg and 150 deg C (248 to 302 deg F) may be used to assist adhesive removal.

(c) Cut a suitable length of new seal, which is supplied overlength.

(d) Adhere the seal to the cover (Ref. 20-25-15).

(7) Fit the pedestal rear cover. Secure the cover with the five pan head screws and countersunk washers. Torque-tighten each of the screws to between 10 and 12 lbf in (0.113 to 0.135 mdaN).

(8) Refit the seat base inboard and outboard covers and secure with the quick-release fasteners.

E. Conclusion

(1) Check that the area is clean and free from tools.

(2) Remove the seat supply and control circuit breaker safety clips and reset the circuit breakers.

(3) Functionally test power control of the seat (Ref. 25-11-21, Adjustment/Test).

4. Start Control Unit (M593) (Ref. Fig. 403)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-

B. Prepare to Remove Start Control Unit

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
2ND PLT SEAT SUP	14-216	M251	F17
2ND PLT SEAT CONT	15-216	M254	C22

C. Removal

(1) Remove the shelf cover and locate the start control unit at shelf 18-216.

(2) Disconnect the bayonet-type electrical connector from the receptacle on the top of the start control unit.

(3) Remove the securing screws and remove the start control unit from the mounting.

D. Prepare to Replace Start Control Unit

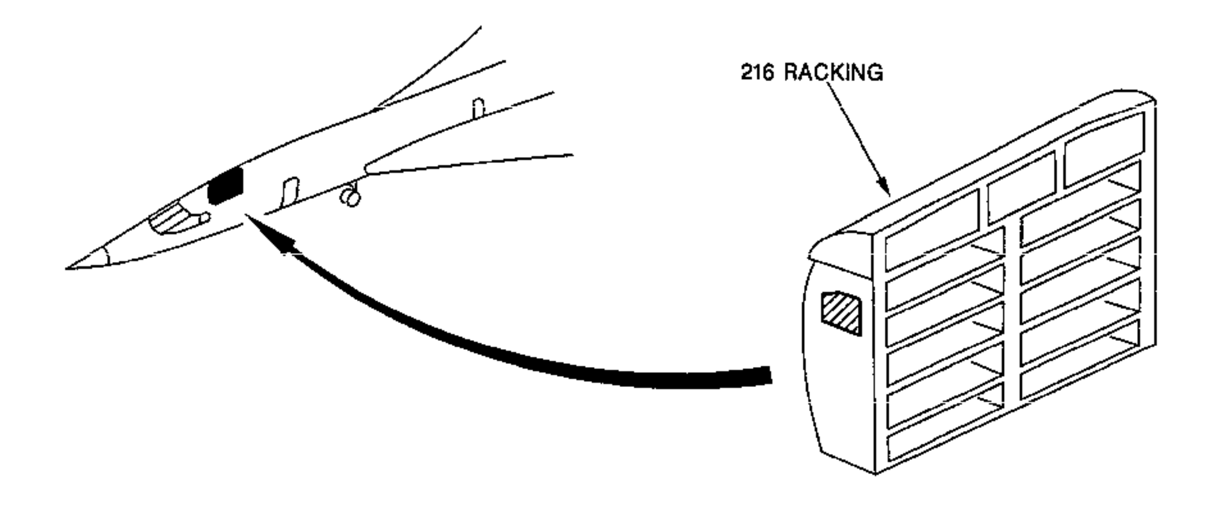
(1) Check the Part No. and examine the replacement start control unit for cleanliness and freedom from damage.

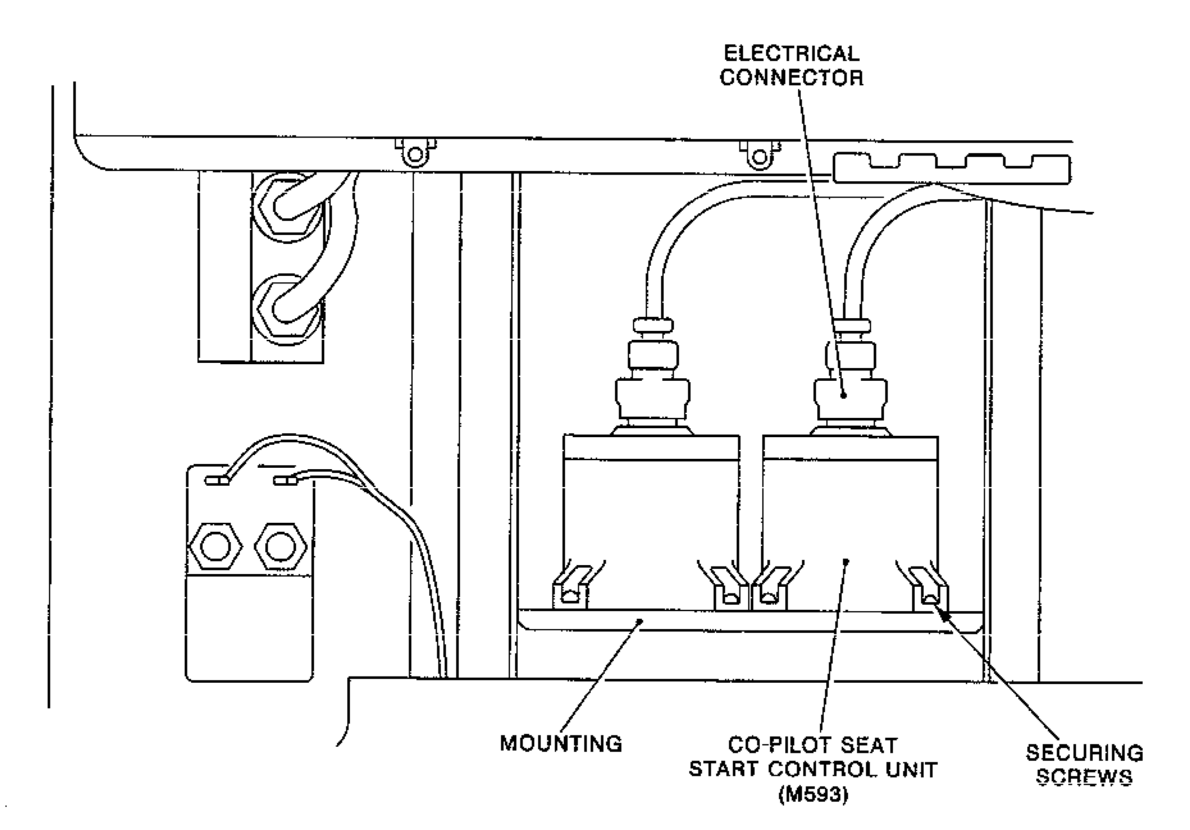
E. Installation

(1) Comply with the electrical safety precautions.

(2) Position the start control unit on panel 18-216 and secure it with the four securing screws. Apply a nominal torque to each screw.

(3) Connect the electrical connector to the receptacle





CMB 25 11 21 4 AEM0 00

Start Control Unit
Figure 403

on the top of the start control unit, ensuring that the mating surfaces are clean and undamaged.

F. Test

(1) Remove the safety clips and close the circuit breakers (Ref. para.B.(1)).

(2) Carry out a Functional Test - Power Controls (Ref. 25-11-21, Adjustment/Test).

G. Conclusion

(1) Check that the area is clean and refit the shelf cover to racking 216.

(2) Remove all tools and equipment from the aircraft.

5. Relay (Ref. Fig. 402)

NOTE: The removal and installation procedures for the Master Control (M535), Forward Control (M536), Aft Control (M537), Up Control (M538) and Down Control (M539) relays are identical.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-

B. Prepare to Remove Relay

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
2ND PLT SEAT SUP	14-216	M251	F17
2ND PLT SEAT CONT	15-216	M254	C22

(2) Slacken the quick-release fasteners and remove the seat base outboard cover.

C. Removal

(1) Locate the appropriate relay on the relay assembly panel (7-212-1) at the outboard side of the seat base.

(2) Remove the nuts and washers securing the relay.

(3) Unplug the relay from the relay socket base and remove the relay.

D. Prepare to Replace Relay

(1) Check the Part No. and examine the replacement relay for cleanliness and freedom from damage.

(2) Ensure that the silicon gasket is correctly fitted on the relay base.

E. Installation

(1) Comply with the electrical safety precautions.

(2) Connect the relay to the relay socket base, ensuring that the mating surfaces are clean and undamaged.

(3) Fit a washer and nut on the three studs and torque-tighten each nut to 4 lbf in (0.045 mdaN).

F. Test

(1) Remove the safety clips and close the circuit breakers (Ref. para.B.(1)).

(2) Carry out a Functional Test - Power Controls (Ref. 25-11-21, Adjustment/Test).

G. Conclusion

(1) Check that the area is clean and refit the seat base outboard cover and secure it with the quick-release fasteners.

(2) Remove all tools and equipment from the aircraft.

6. Relay (Ref. Fig. 402).

NOTE: The removal and installation procedures for the Seat Limit Control Forward (M547), the Seat Limit Control Aft (M548), the Seat Limit Control Up (M549) and the Seat Limit Control Down (M550) relays are identical.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-

B. Prepare to Remove Relay

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
2ND PILOT SEAT SUP	14-216	M251	F17
2ND PILOT SEAT CONT	15-216	M254	C22

(2) Slacken the quick-release fasteners and remove the seat base outboard cover.

C. Removal

(1) Locate the appropriate relay on the relay panel assembly at the outboard side of the seat base.

(2) Remove the screws and washers securing the relay.

(3) Unplug the relay from the relay socket base and remove the relay.

D. Prepare to Replace Relay

(1) Check the Part No. and examine the replacement relay for cleanliness and freedom from damage.

(2) Ensure that the silicon gasket is correctly fitted at the relay base.

E. Installation

(1) Comply with the electrical safety precautions.

(2) Connect the relay to the relay socket base, ensuring that the mating surfaces are clean and undamaged.

(3) Fit the washers and screws and tighten each screw to a nominal torque.

F. Test

(1) Remove the safety clips and close the circuit breakers (Ref. para.B.(1)).

(2) Carry out a Functional Test - Power Controls (Ref. 25-11-21, Adjustment/Test).

G. Conclusion

(1) Check that the area is clean and refit the seat base outboard cover and secure it with the quick-release fasteners.

(2) Remove all tools and equipment from the aircraft.

7. Relay Socket Base (Ref. Fig. 402)

NOTE: The removal/installation procedure for the relay socket bases used on the co-pilot's seat circuits have either two or three point fixings.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Tool, contact, insertion and extraction (NAS 1664-16)	-
Contacts (BAS 7419)	-

B. Prepare to Remove Relay Socket Base

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
2ND PILOT SEAT SUP	14-216	M251	F17
2ND PILOT SEAT CONT	15-216	M254	C22

(2) Slacken the quick-release fasteners and remove the seat base outboard cover.

C. Removal

(1) Remove the appropriate relay (Ref. para.5 or 6 as applicable).

(2) Remove the panel securing screws, washers, spacers, clips and nuts to gain access to the rear of the relay panel assembly.

(3) Disconnect the wiring from the relay socket base.

NOTE: Use the contact extraction tool (white end) for this operation.

(4) Remove the nuts and washers securing the relay socket base to the panel. Remove the relay socket base.

D. Prepare to Replace Relay Socket Base

(1) Check the Part No. and examine the replacement relay socket base for cleanliness and freedom from damage.

(2) Ensure that the silicone rubber rear grommet is securely bonded to the body.

E. Installation

(1) Comply with the electrical safety precautions.

(2) Position the relay socket base behind the relay panel assembly and secure it with the washers and nuts.

NOTE: For bases with 3 point fixings, torque-tighten each nut to between 10 and 12 lbf in (0.113 and 0.135 mdaN) and for bases with 2 point fixings, torque-tighten each nut to 4 lbf in (0.045 mdaN).

(3) Connect the electrical cables to the relay socket base, ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

NOTE: Use the contact insertion tool (blue end) for this operation.

(4) Ensure that the rear grommet is correctly fitted over the wires.

(5) Carry out a loose articles check in the vicinity of the relay panel assembly and remove any foreign matter.

(6) Refit and secure the relay panel assembly using the screws, washers, clips, spacers and nuts.

(7) Refit the appropriate relay (Ref. para.5 or 6).

F. Test

(1) Remove the safety clips and close the circuit breakers (Ref. para.B.(1)).

(2) Carry out a Functional Test - Power Controls (Ref. 25-11-21, Adjustment/Test).

G. Conclusion

(1) Check that the area is clean and refit the seat base outboard cover and secure it with the quick-release fasteners.

(2) Remove all tools and equipment from the aircraft.

8. Microswitch (Ref. Fig. 402)

NOTE: The removal/installation procedures for the Travel Limit Up 'E' (M528) and the Travel Limit Down 'F' (M529) microswitches are identical.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Crimping tool	-
Tool, contact, insertion and extraction (M15570-22-1)	-
Contacts (P095-05)	-
Stainless steel wire 0.28 in dia. (0.7 mm)	-
Heat shrink sleeving (BAS7436)	

B. Prepare to Remove Microswitch

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
2ND PILOT SEAT SUP	14-216	M251	F17
2ND PILOT SEAT CONT	15-216	M254	C22

(2) Slacken the quick-release fasteners and remove the seat base covers.

C. Removal

(1) Locate the appropriate microswitch in the seat base (7-212).

(2) Adjust the forward/aft position and elevation of the seat to give maximum working space, by the use of the seat height manual adjustment handle and the emergency crashlock and motor drive disconnect lever.

(3) Disconnect the wiring from the module blocks (Ref. Wiring Diagram Manual).

NOTE: Use the contact extraction tool for this purpose.

(4) Remove the microswitch from the bracket and remove the wiring from the looms by loosening or removing clips as necessary.

D. Prepare to Replace Microswitch

(1) Check the Part No. and examine the replacement microswitch for cleanliness and freedom from damage.

(2) Remove the securing nut from the microswitch.

(3) Fit heat shrink sleeving along the length of the wiring from the microswitch (Ref. Wiring Diagram Manual, 20-41-14).

E. Installation

(1) Comply with the electrical safety precautions.

(2) Secure the microswitch in the mounting, ensuring that the spigot is in the locating hole. Tighten the securing nut to a nominal torque and wire-lock.

(3) Route the wiring from the microswitch in the looms. Refit and tighten the loom securing clips.

(4) Prepare the wiring ends in accordance with the Wiring Diagram Manual 20-42-18.

(5) Connect the wiring to the module blocks, ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

(6) Adjust the microswitch striker bolt (Ref. 25-11-21, Adjustment/Test).

F. Test

(1) Remove all tools and equipment from the vicinity of the seat. Examine the seat base area, including the seat rails, and remove any foreign matter.

(2) Remove the safety clips and close the circuit breakers (Ref. para.B.(1)).

(3) Carry out a Functional Test - Power Controls (Ref. 25-11-21, Adjustment/Test).

G. Conclusion

(1) Check that the area is clean and refit the seat base covers and secure with the quick-release fasteners.

(2) Remove all tools and equipment from the aircraft.

9. Proximity Switch (Ref. Fig. 402)

NOTE: The removal/installation procedures for the Proximity Switch Forward 'A' (M527) and the Proximity Switch Aft 'B' (M526) are similar.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Crimping tool	-
Tool, contact, insertion and extraction (M15570-22-1)	-
Contacts (P095-05)	-
Torque spanner 0-40 lbf in (0-0.452 mdaN) range	-

B. Prepare to Remove Microswitch

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
2ND PILOT SEAT SUP	14-216	M251	F17
2ND PILOT SEAT CONT	15-216	M254	C22

(2) Slacken the quick-release fasteners and remove the seat base outboard cover.

C. Removal

(1) Locate the proximity switch at the seat base, outboard side beam (7-212).

NOTE: The proximity switch, forward 'A' (M527) is at the rear of the side beam and the proximity switch, aft 'B' (M526) is half-way along the side beam.

(2) Adjust the forward/aft position and elevation of the seat to give maximum working space, by the use of the height manual adjustment handle and the emergency crashlock and motor drive disconnect lever.

(3) Disconnect the wiring from the proximity switch at the module blocks (Ref. applicable wiring diagram).

NOTE: Use the contact extraction tool (white end) for this purpose.

(4) Remove the bolts securing the proximity switch to the mounting bracket. Remove the proximity switch, together with the wiring, from the looms by loosening or removing clips as necessary.

D. Prepare to Replace Proximity Switch

(1) Check the Part No. and examine the replacement proximity switch for cleanliness and freedom from damage.

E. Installation

(1) Comply with the electrical safety precautions.

(2) Route the proximity switch wiring in the looms and position the proximity switch in the mounting bracket.

(3) Secure the proximity switch to the bracket, using the two bolts, nuts and spacers (where applicable). Torque-tighten each bolt to between 30 and 40 lbf in (0.339 and 0.452 mdaN).

(4) Refit and tighten the loom securing clips.

(5) Prepare the proximity switch wiring in accordance with the Wiring Diagram Manual, 20-42-18.

(6) Connect the electric cables to the module blocks, ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

NOTE: Use the contact insertion tool (yellow end) for this purpose.

(7) Adjust the proximity switch (Ref. 25-11-21, Adjustment/Test).

F. Test

(1) Remove all tools and equipment from the vicinity of the seat. Examine the seat base area, including the seat rails, and remove any foreign matter.

(2) Remove the safety clips and close the circuit breakers (Ref. para.B.(1)).

(3) Carry out a Functional Test - Power Controls (Ref. 25-11-21, Adjustment/Test).

G. Conclusion

(1) Check that the area is clean and refit the seat base outboard cover and secure the quick-release fasteners.

(2) Remove all tools and equipment from the aircraft.

10. Switch, Power On and Knob Illuminated (M502)
(Ref. Fig. 401 and 402)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Loctite grade 221 (Ref. 20-30-00 No.112)	-
Locquic 'N' (Ref. 20-30-00, No.120)	-
Cleaning solvent BAC M302 (Ref. 20-30-00, No.473)	-

DESCRIPTION	PART NO.
Torque spanner 0-15 lbf in (0-0.169 mdaN) range	-
'Kimwipe' tissues	-

B. Prepare to Remove Switch

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
2ND PILOT SEAT SUP	14-216	M251	F17
2ND PILOT SEAT CONT	15-216	M254	C22

C. Removal

(1) Locate the switch at the rear of the seat control console (7-212-2).

(2) Unscrew the knob and remove it, complete with the lamp, from the switch.

(3) Remove the securing nut, crinkle washer and locating washer from the switch mounting bracket.

(4) Remove the torq-set screws from the switch mounting bracket. Remove the bracket.

(5) Remove the switch from the control console and disconnect the wiring from the three screw-type terminals. Remove the switch.

D. Prepare to Replace Switch

(1) Check the Part No. and examine the replacement switch for cleanliness and freedom from damage.

(2) Unscrew and remove the knob from the switch.

(3) Remove the securing nut, crinkle washer and locating washer from the switch.

(4) Clean the switch housing and screws with a 'Kimwipe' tissue moistened with cleaning solvent (Ref. 20-30-00 No.473).

(5) Dry thoroughly with a clean dry 'Kimwipe' tissue.

E. Installation

(1) Comply with the electrical safety precautions.

(2) Connect the electrical cables to the switch terminals ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram. Tighten the terminal screws to a nominal torque.

(3) Position the switch adjustment nut as required and fit the switch into the switch mounting bracket.

(4) Position the locating washer and secure the switch with the crinkle washer and nut, finger tight.

(5) Position the switch mounting bracket and secure it with the four torq-set screws to a nominal torque.

NOTE: Wet assemble the screws using Loctite grade 221 and Locquic 'N'.

(6) Torque-tighten the switch securing nut to between 8.5 and 10 lbf in (0.095 and 0.113 mdaN).

(7) Check that the lamp is fitted in the knob and screw the knob into the switch.

F. Test

(1) Remove all tools and equipment from the vicinity of the seat.

(2) Remove the safety clips and close the circuit breakers (Ref. para.B.(1)).

(3) Carry out a Functional Test - Power Controls (Ref. 25-11-21, Adjustment/Test).

G. Conclusion

(1) Remove all tools and equipment from the aircraft.

11. Switch (M512) and (M514) (Ref. Fig. 402)

NOTE: The removal/installation procedures for the UP/DOWN Master Switch (M512) and the UP/DOWN Control Switch (M514) are identical.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Soldering iron	-
Solder, resin-cored (BS441)	-
Safety flux (DTD 599)	-
Industrial methylated spirits (BS3591)	-
Crocus paper, fine grade	-

B. Prepare to Remove Switch

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
2ND PILOT SEAT SUP	14-216	M251	F17
2ND PILOT SEAT CONT	15-216	M254	C22

C. Removal

(1) Locate the appropriate switch at the seat control console (7-212-2).

NOTE: The UP/DOWN Master Switch (M512) is the forward switch.

(2) Remove the securing screws from the control console side panel. Remove the side panel.

(3) Loosen the switch securing nut.

(4) Lift out the switch plate to gain access to the switch terminals.

NOTE: The switch plate is located on two dowels.

(5) Unsolder the wiring from the switch.

(6) Remove the switch securing nut, shakeproof washer and locating washer from the switch. Remove the switch.

D. Prepare to Replace Switch

(1) Check the Part No. and examine the replacement switch for cleanliness and freedom from damage.

(2) Remove the securing nut, shakeproof washer and locating washer from the switch.

NOTE: If an adjustment nut is fitted on the switch, this must be removed and discarded.

E. Installation

(1) Comply with the electrical safety precautions.

(2) Position the switch in the switch plate and secure it with the locating washer, shakeproof washer and securing nut, finger tight.

(3) Soft-solder the electrical cables to the switch terminals, ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

(4) Position the switch plate on the dowels and tighten the switch securing nut using a nominal torque.

(5) Examine the inside of the control console for cleanliness and remove any foreign objects.

(6) Position the control console side panel and secure it with the four screws using a nominal torque.

F. Test

(1) Remove all tools and equipment from the vicinity of the seat.

(2) Remove the safety clips and close the circuit breakers (Ref. para.B.(1)).

(3) Carry out a Functional Test - Power Controls (Ref. 25-11-21, Adjustment/Test).

G. Conclusion

(1) Remove all tools and equipment from the aircraft.

12. Switch (M511) and (M513) (Ref. Fig. 402)

NOTE: The removal/installation procedures for the FORWARD/AFT Master Switch (M511) and the FORWARD/AFT Control Switch (M513) are identical.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque spanner 0-10 lbf in (0-0.113 mdaN) range	-
Soldering iron	-
Solder, resin-cored (BS441)	-
Safety flux (DTD 599)	-
Industrial methylated spirits (BS 3591)	-
Crocus paper, fine grade	-
JC5-A Jointing Compound (Ref. 20-30-00, No.382)	-
Loctite grade 221 (Ref. 20-30-00, No.112)	-
Locquic 'N' (Ref. 20-30-00, No.120)	-

DESCRIPTION	PART NO.
Cleaning solvent BAC M302 (Ref. 20-30-00, No.473)	-
'Kimwipe' tissues	-

B. Prepare to Remove Switch

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
2ND PILOT SEAT SUP	14-216	M251	F17
2ND PILOT SEAT CONT	15-216	M254	C22

C. Removal

(1) Locate the two ganged switches in the crashlock release lever, on top of the seat control console (7-212-2).

(2) Remove the screw from the gauging bar. Remove the gauging bar.

(3) Remove the securing nuts, shakeproof washers and locating washers from both switches.

(4) Remove the securing screws from the control console side panel. Remove the side panel.

(5) Remove both switches, together with their wiring and cable support bracket, from the crashlock release lever housing into the control console.

(6) Unsolder the wiring from the appropriate switch. Remove the switch.

D. Prepare to Replace Switch

(1) Check the Part No. and examine the replacement switch for cleanliness and freedom from damage.

(2) Remove the securing nut, shakeproof washer and locating washer from the switch.

NOTE: If an adjustment nut is fitted on the switch, this must be removed and discarded.

E. Installation

(1) Comply with the electrical safety precautions.

(2) Soft-solder the electrical cables to the switch terminals, ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

(3) Position both switches, complete with wiring and cable support bracket, in their correct locations in the crashlock release lever housing.

NOTE: Switch M511 is the LH switch.

(4) Secure both switches using the location washers, shakeproof washers and securing nuts. Tighten the nuts to a nominal torque.

(5) Check the inside of the control console for cleanliness and remove any foreign objects.

(6) Position the control console side panel and secure it with the four screws to a nominal torque.

(7) Clean the gauging bar using a 'Kimwipe' tissue moistened with cleaning solvent (Ref. 20-30-00, No.473). Wipe dry using a clean 'Kimwipe' tissue.

(8) Examine the gauging bar and ensure that it is undamaged.

(9) Apply a thin coating of jointing compound (Ref. 20-30-00, No.382) to the mating surfaces of the gauging bar and position over the two switch toggles.

(10) Secure the gauging bar with the screw and wet assemble using Loctite grade 221 and Locquic 'N'. Torque-tighten the screw to 5 lbf in (0.056 mdaN).

NOTE: Support the gauging bar when tightening the screw, to avoid damage to the switches.

(11) Remove all traces of excess jointing compound from the gauging bar using a clean 'Kimwipe' tissue.

F. Test

(1) Remove all tools and equipment from the vicinity of the seat.

(2) Remove the safety clips and close the circuit breakers (Ref. para.B.(1)).

(3) Carry out a Functional Test - Power Controls (Ref. 25-11-21, Adjustment/Test).

G. Conclusion

(1) Remove all tools and equipment from the aircraft.

CO-PILOT'S SEAT ASSEMBLY - ADJUSTMENT/TEST

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The seat is mounted on radius arms fitted to curved rails on the right side of the flight compartment and can be electrically or manually operated to adjust its height, or its fore-and-aft position on the mounting rails.

This topic describes the adjustment of the various control mechanisms of the seat and details the test procedures for each of the seat functions.

2. Seat Crashlock and Motor Drive Disconnect Mechanism - Adjustment

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Slip gauges	- 32
Straight edge, minimum length 12 in (20.48 CM).	-
Torque screwdriver 0-15 lbf in (0-0.170 mdaN) range	=
Non-corrodible steel wire, 0.028 in (0.7 mm) dia.	-

B. Prepare to Adjust Crashlocks and Motor Drive Disconnect Mechanism

(1) Trip the seat circuit breakers and fit safety clips.

Printed in England

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
2ND PLT SEAT SUP	14-216	M251	F17
2ND PLT SEAT CONT	15-216	M254	C22

(2) Remove the seat pedestal covers.

C. Adjust Crashlock (Ref. Fig. 501).

(1) Lift the emergency crashlock and motor drive disconnect lever and move the seat rearward as far as possible to a position where, when the lever is released, the lock pin is not engaged, i.e. resting on the top surface of the rais.

(2) Using slip-gauges and a straight edge, measure the dimension between the datum point on the rear of the spring-loaded pin actuator, and the top surface of the seat base side beam.

(3) Slacken the locknuts on the eyebolts connecting the pin actuator and adjust the eyebolt to a mean setting between limits of the available adjustment.

(4) Move the seat forward to a position where the lock pin engages the hole in the rail.

(5) Adjust the operating cable length to obtain a dimension measured with the slip gauges and the straight edge, between the link datum and top surface of the side beam, which is equal to the dimension found in (2) less 0.19 in (4.83 mm).

NOTE: If dimension cannot be obtained by adjustment of cable length only, additional adjustment can be made at the eyebolt.

(6) Tighten the adjustment locking nuts on the eyebolts and cable, and wirelock.

(7) Check/adjust the motor drive disconnect mechanism (Ref. para. D).

D. Adjust Motor Drive Disconnect Mechanism (Ref. Fig. 501)

(1) Lift the crashlock and motor drive disconnect lever

and check the travel of the cable ball end attachment to the motor disconnect lever; the travel dimension should be 0.60 in (1.52 mm). Adjust, if necessary, as follows:

(a) Slacken the locknut on the adjustment set screw on the lever mounting bracket and unscrew the set screw until it just protrudes through the bracket.

(b) Ensure that the drive is connected by checking that, with the emergency crashlock and motor drive connect lever released, the seat can not be pushed manually along the rails. Slacken off the locknuts at the cable screwed ferrules until the cable slack is taken up and the motor disconnect lever starts to move. Tighten the locknuts and wirelock.

R (c) Depress the motor disconnect lever until the cable ball end has travelled 0.60 in (15.2 mm). Turn the set screw until it contacts the lever. Tighten the locknut on the set screw, then release the disconnect lever.

(2) Lift the emergency crashlock and motor drive disconnect lever at the control consol and traverse the seat forward and rearward to ensure satisfactory disengagement of the motor drive and the crashlock pin.

(3) Fit the covers to the seat pedestal and torque-load the securing screws to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(4) Remove the safety clips and reset the seat circuit breakers.

(5) Test the fore-and-aft travel of the seat and check the operation of the crashlocks (Ref. para. 5.A.).

3. Forward and Rearward Travel Proximity Switches - Adjustment

A. Equipment and Materials

DESCRIPTION	PART NO.
Feeler gauges	-

DESCRIPTION	PART NO.
Torque screwdriver 0-15 lbf in (0-0.170 mdaN) range	-
Torque spanner 0-40 lbf in (0-0452 mdaN) range	-
Non-corrodible steel wire, 0.028 in (0.7 mm)	-

NOTE: Vertical adjustment only is possible on the switch mountings on the seat. Linear adjustment is effected by positioning of the serrated switch targets on the floor of the flight compartment.

B. Adjust Forward Travel Proximity Switch (Ref. Fig. 501).

(1) Lift the emergency crashlock and motor drive disconnect lever to disengage the lock pin; traverse the seat to its mid-travel position.

(2) Unlock and slacken the bolts securing the forward proximity switch bracket to the seat base and the target to the floor panel.

R (3) adjust the target, forward and rearward, on its serrations and adjust the switch vertically on its serrations until the seat when moving forward under power, stops within 0.05 to 0.10 in (1.27 to 2.54 mm) of the forward physical stop.

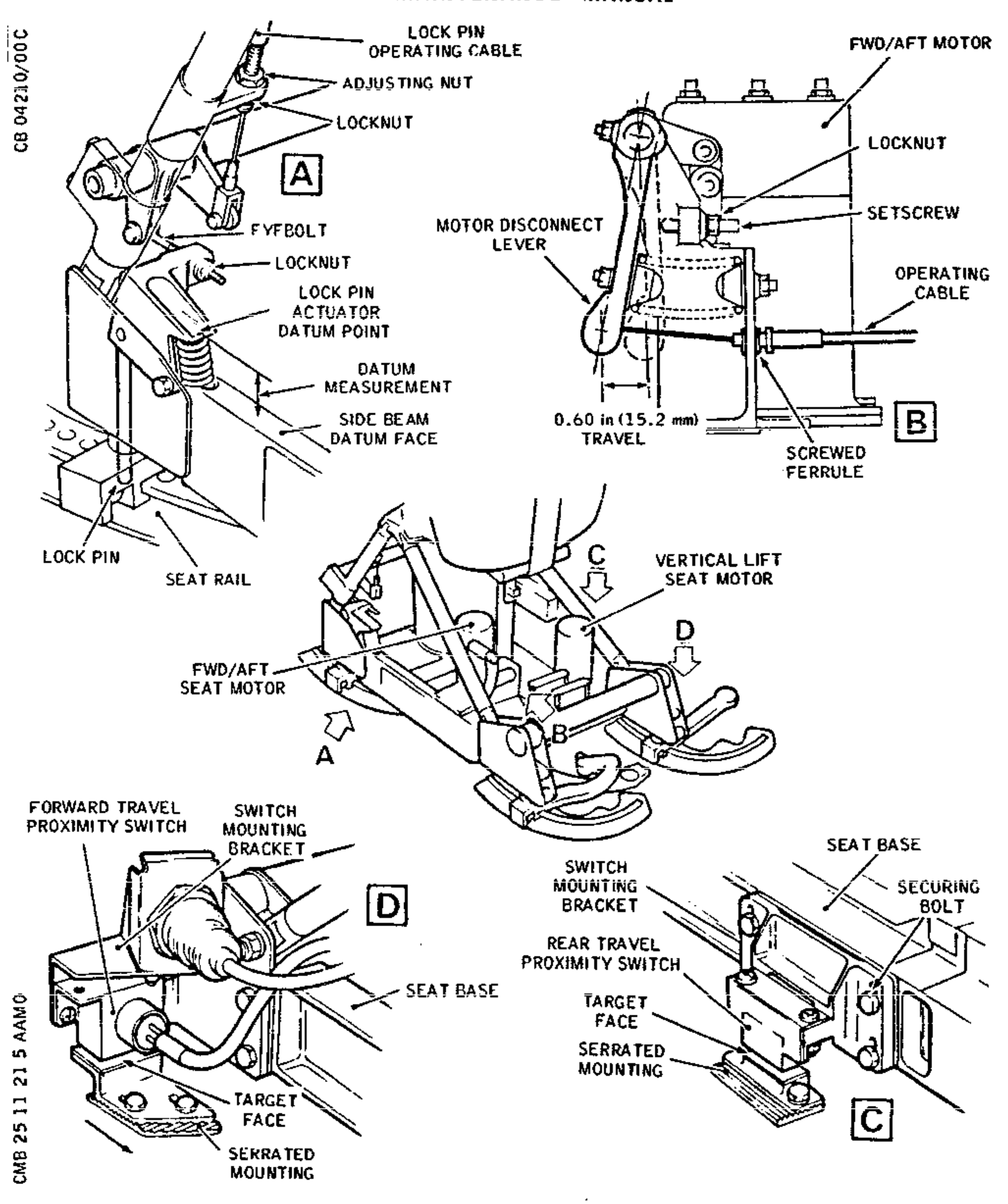
(4) Torque tighten the target and proximity switch bracket securing bolts to between 30 to 40 lbf in (0.339 to 0.452 mdaN) and wirelock.

(5) Proceed to adjust the rearward travel proximity switch, (Ref.para.C.).

C. Adjust Rearward Travel Proximity Switch (Ref. Fig. 501).

(1) Lift the emergency crashlock and motor drive disconnect lever to disengage the lock pin, traverse the seat to its mid-travel position.

(2) Unlock and slacken the bolts securing the rear



Crashlock, Motor Drive Disconnect
and Proximity Switch Adjustment
Figure 501

proximity switch bracket to the seat base and target to the floor panel.

(3) Adjust the target forward amd rearward on its serrations and adjust the switch vertically on its serrations until the seat, when moving rearward under power, stops within 0.05 to 0.10 in (1.27 to 2.54 mm) of the rear physical stop.

(4) Torque tighten the target and proximity switch bracket securing bolts to between 30 to 40 lbf in (0.339 to 0.452 mdaN) and wirelock.

R (5) Test the seat, forward and rearward under power
R (Ref.para.6.) and check the operation of the forward and the rearward travel limit switches.

4. Maximum Seat Raise and Lower Travel Limit Switches - Adjustment

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque screwdriver, 0-15 lbf in (0-0.170 mdaN) range	-
Torque spanner, 0-32 lbf in R (0-0361 mdaN) range	-
Test lamp	-
Non-corrodible steel wire, 0.028 in (0.7 mm)	-

B. Prepare to Adjust Limit Switches

(1) Trip the seat circuit breakers and fit safety clips.

(2) Remove the seat pedestal covers.

C. Adjust Raised Travel Limit Switch (Ref. Fig. 502)

(1) Connect a test lamp across the terminals of the limit

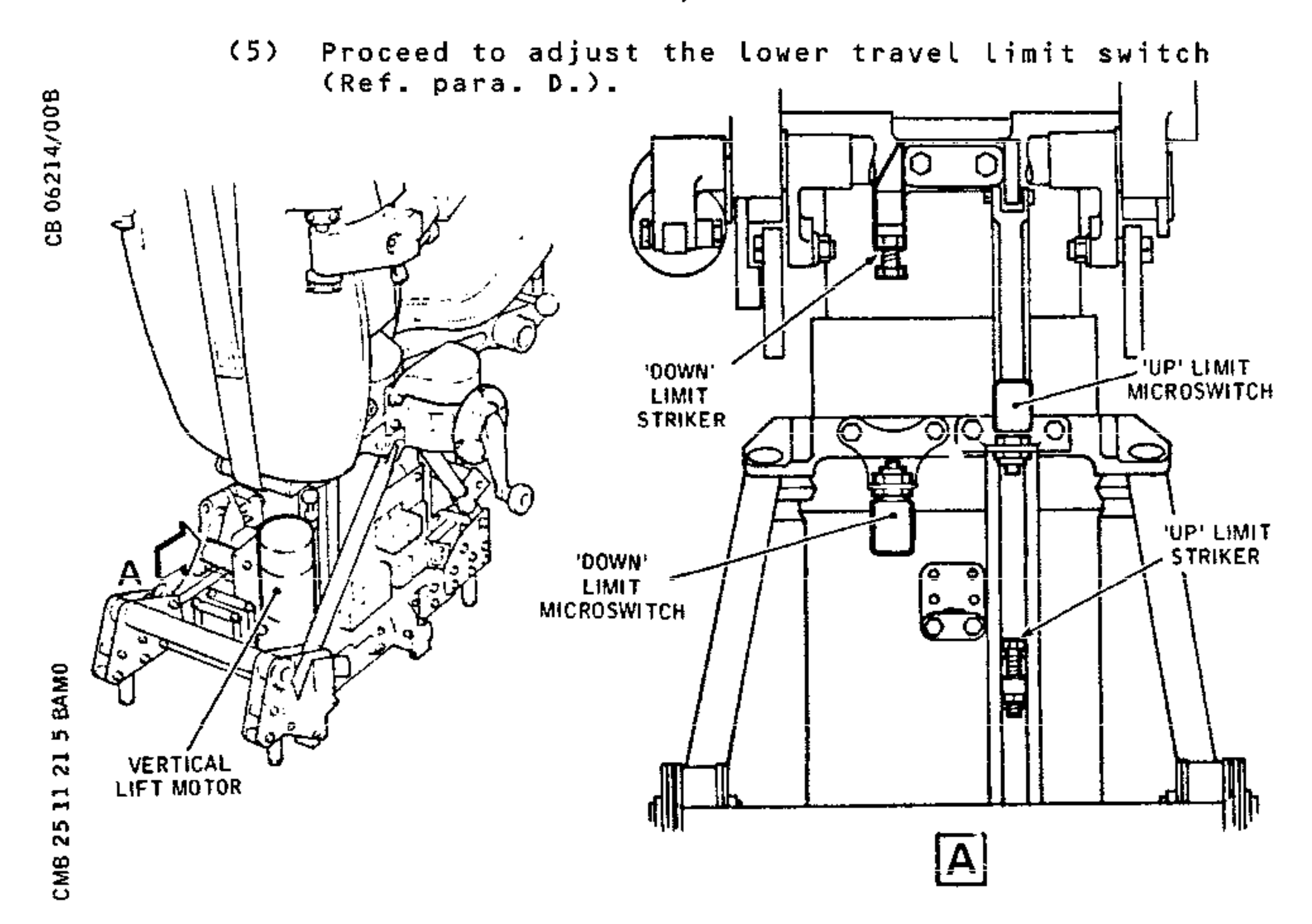
switch.

(2) Manually operate the seat to its maximum height.

(3) Slacken the locknut on the target screw situated at the base and aft of the telescopic tube assembly and adjust the screw until the test lamp is extinguished. Rotate the screw a further two turns then torque-load the locknut to between 27 and 32 lbf in (0.305 and 0.361 mdaN) and wire-lock.

(4) Remove the test lamp.

(5) Proceed to adjust the lower travel limit switch (Ref. para. D.).



Seat Raise and Lower Limit Switch Adjustment
Figure 502

D. Adjust Lower Travel Limit Switch (Ref. Fig. 502)

(1) Connect a test lamp across the terminals of the limit switch.

(2) Manually operate the seat to its lowest limit.

(3) Slacken the locknut on the target screw which is situated at the top and aft of the telescopic tube assembly and adjust the screw until the test lamp is extinguished. Rotate the screw a further two turns then torque load the locknut to between 27 and 32 lbf in (0.305 and 0.361 mdaN) and wire-lock.

(4) Remove the test lamp.

(5) Fit the seat pedestal covers. Torque-load the cover securing screws to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(6) Remove the safety clips and reset the seat circuit breakers.

(7) Test the powered height adjustment of the seat (Ref. para. 6).

5. Functional Test - Manual Controls

A. Seat Fwd./Aft Travel

(1) Lift the emergency crashlock and motor drive disconnect lever to disengage the lock pin; move the seat forward and rearward on its rails to check ease of movement and full travel. Release the lever and check that the lock pin engages fully into the rail at the various crashlock hole locations.

B. Seat Height Variation

(1) Sit in the seat. Disengage the height adjustment handle from the slot in the locking plate.

(2) Rotate the handle and check that there is ease of movement throughout the whole range of height adjustment.

(3) At various positions push the handle into the locking slot and check for positive locking.

C. Seat Back Angle Variation

(1) Sit in the seat and lift the back angle adjustment locking lever, then lean backward to exert pressure against the back of the seat. Release the lever at various back angle positions and check that the seat back is positively locked.

(2) Move the back of the seat to the full recline (rearward) position. Keep the locking lever in the raised position, then ease-forward in the seat and check that the spring loading moves the back of the seat to the fully-forward position.

D. Armrest Angle Adjustment

(1) Operate the knurled roller under each armrest and
R ensure that the arm adjusts smoothly from stop to
stop. Raise the inboard armrest through 90 deg and
ensure that is locks positively in the raised
position. Raise the outboard armrest and ensure that
its upward movement is baulked short of the 90 deg
R raised position and that it is free to return to its
R horizontal position.

(2) Operate the trigger immediately below the roller on the inboard armrest and ensure that the armrest is free to drop to the horizontal position. Operate the trigger on the outboard armrest and ensure that the armrest drops to a position below the horizontal. Lifting above the horizontal position must cock the trigger.

NOTE: Only when the inboard armrest is locked in the
raised position must it be possible to lift the
hinge back and swing the armrest into the
stowed position, behind the seat back. Ensure
R that in this position, it is firmly located
in its detent. The outboard armrest can not
be stowed.

E. Seat Pan Angle Variation

(1) Sit in the seat and lift the seat pan angle adjustment lock lever and shift the body weight forward and aft to alter the angle of the seat pan.

(2) Check that positive locking of seat pan angle is obtained within the adjustment range when the lever is released.

F. Safety Harness

(1) Sit in the seat and fasten the safety harness in the usual position on the body.

(2) Move the inertia harness control lever to the rear (automatic locking release) position to ensure reel mechanism is unlocked, then release the lever which

should automatically return to the centre position.

(3) Check that with the lever in the centre position it is possible to slowly withdraw the harness strap from the reel and that when tension on the strap is released it is retracted into the reel.

(4) Attempt to withdraw the strap with a sudden jerk and ensure that withdrawal is baulked by action of the inertia lock within the reel.

(5) Move the control lever to the rear position again, then release it to return to the centre position. Check that the harness moves freely in either direction. Pull the strap partly out and, retaining the strap, move the control lever to the forward (manual locking) position. Check that reel out of the stop is blocked but that it reels in automatically when released.

NOTE: With the control lever set in either the forward or centre positions, reel in of the harness should be accompanied by a distinctive audible rattle.

(6) Disconnect the harness. Withdraw one lap strap from its reel then, relaxing the tension, check that it automatically reels in one ratchet tooth at a time. Check that at each of these stages it is locked to prevent reel-out, reel out being possible only when the full reel-in position is reached. Repeat the test on the other lap strap.

6. Functional Test - Power Control

A. Prepare to Test

(1) Make available electrical ground power (Ref.24-41-00).

(2) Pull the power 'on-off' switch and check that its green indicator lamp illuminates, and that when the indicator lamp is rotated the light intensity varies.

B. Test Seat Power Controls

(1) Lift the crashlock release lever and operate the horizontal travel switches. Check that the seat movement, forward and rearward as selected, is smooth over the full range of travel and is terminated in each direction by the operation of the limit switches.

(2) Operate the height control switches and check that the seat 'motors' through its full vertical adjustment and is terminated in each direction by operation of the limit switches.

(3) Isolate the seat power supply by pressing the power 'on'off' switch and check that the indicator lamp is extinguished.

(4) Switch off and disconnect the electrical ground supply (Ref. 24-41-00).

Printed in England

CO-PILOT'S SEAT ASSEMBLY - INSPECTION/CHECK

R 1. General (Ref. Fig. 602)

The seat is mounted on radius arms on curved rails at the right-hand side of the flight compartment. A control master switch (pull-'On', press-'Off') is located at the rear of the control console on the inboard side of the seat; the switch has a green indicator lamp which illuminates when the switch is pulled to 'On'.

R In the following inspection/check:
R -paragraphs 2.B and C. are inspections with the seat installed
R -paragraph 2.D with the seat removed.

2. Inspection/Check

R A. Equipment and Materials

DESCRIPTION	PART NO.
Micrometer - range 0-1 in (0-25.4 mm).	-
Dial test indicator	-
Cleaning solvent (Ref.20-30-00, No.473)	BACM 302
'Kimwipe' tissue	-
Vernier calipers - range 0-1 in (0-25.4 mm)	-

R B. Inspection Seat Installed

(1) Inspect the inertia safety harness-attachments for cracks, distortion, corrosion and other damage.

(2) Inspect the harness-webbing for opening of weave, fraying, security of stitching and contamination (by grease, oil etc.).

(3) Inspect control cables for kinks or chafing.

(4) Inspect electrical cables and connections for chafing and cracks.

(5) Visually examine the structure and components

for cracks, burrs and damage.

C. Check Seat Installed

(1) Check the end fitting of control cables for security and alignment.

(2) Check electrical connector for security of fitting.

(3) Check all locking devices on seat and seat installation fittings for security.

(4) Check curved seat rails and radius arms for security and cleanliness.

D. Inspection/Check - Seat Removed

(1) Remove the seat (Ref. 25-11-21, Removal/Installation)

(2) Thoroughly clean the crashlock pin and seat rails with a 'Kimwipe' tissue and cleaning solvent. Dry the components thoroughly using a clean 'Kimwipe' tissue.

(3) Inspect the seat rails for damage. If damage is perceptible measure and assess the degree of damage using a D.T.I. (Ref. Fig. 601).

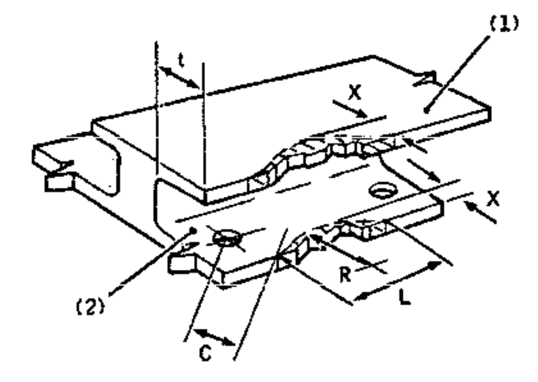
(4) Check the crashlock pin and front inboard seat rail for cracks and wear in conjunction with Table 601.

Detail and Item No.	Original Mfg Limits				In-Service Wear Limits		
	Dimension ins. (Millimeters)		Assy.Clearance Inch. (Milli.)		Dimension Limits Inch (Milli.)		Max. Allow. clear in.(mm)
	Min.	Max.	Min.	Max.	Min.	Max.	
Seat rail hole dia	0.2812 (7,14)	0.2821 (7,16)				0.299 (7,60)	
			0.0317 (0,80)	0.0332 (0.84)			0.0498 (1,25)
Crashlock Pin dia	0.2489 (6,32)	0.2495 (6,34)				0.231 (5,88)	

Wear Limits - Crashlock Pin/Forward Inboard Seat Rail
Table 601

(5) Rectify by replacement of any damaged or worn

DAMAGED EDGES



CB 09515/00A

$X = \frac{t}{5}$ MAX. (1)

= 0.098 in (2.5 mm) (2)

L = 20X MIN.

R = 25X MIN.

C = 1.2D

X = DAMAGE DEPTH AFTER BLENDING (2)
= LENGTH OF FLANGE (1) REMOVED BY BLENDING OUT OF DAMAGE

L = DAMAGE LENGTH AFTER BLENDING

R = RADIUS LIMITS OF BLENDED ZONE

C = DISTANCE BETWEEN BLENDED ZONE AND THE CENTRE OF A FASTENER OF DIA. D

t = TOTAL LENGTH OF FLANGE

BLEND OUT DAMAGE RESPECTING RADIUS R AS SHOWN AT (1)

CRACKS

CRACK DETECT.
NO CRACKS ALLOWED
(BUT EDGE CRACKS TREAT AS DAMAGED EDGES)

SCORE, SCRATCH, ABRASION AND MILD CORROSION

(3)
10Y
10Y
(4)
T
10Y
(6)
(5)
T

CMB 25 11 21 6 BAMO

Y MAX.

= 0.039 in (1.0 mm) ON SURFACE (3)

= 0.016 in (0.4 mm) ON SURFACE (4)

$= \frac{T}{8}$ ON SURFACES (5) AND (6)

IF DAMAGE IS IN LINE ON OPPOSITE FACES IN THE RECESS, ALLOWABLE DEPTH Y = CUMULATIVE DAMAGE (6

NOTE: AFTER BLENDING OUT, AREA MUST BE CRACK DETECTED.

AFFECTED AREA MUST BE CHECKED TO ENSURE THAT ALL TRACES OF CORROSION ARE REMOVEI AND AREA REPROTECTED AS REQUIRED.

Y = DAMAGE DEPTH AFTER BLENDING

T = THICKNESS OF DAMAGED WEB

Permissible Damage Criteria - Seat Rails
Figure 601

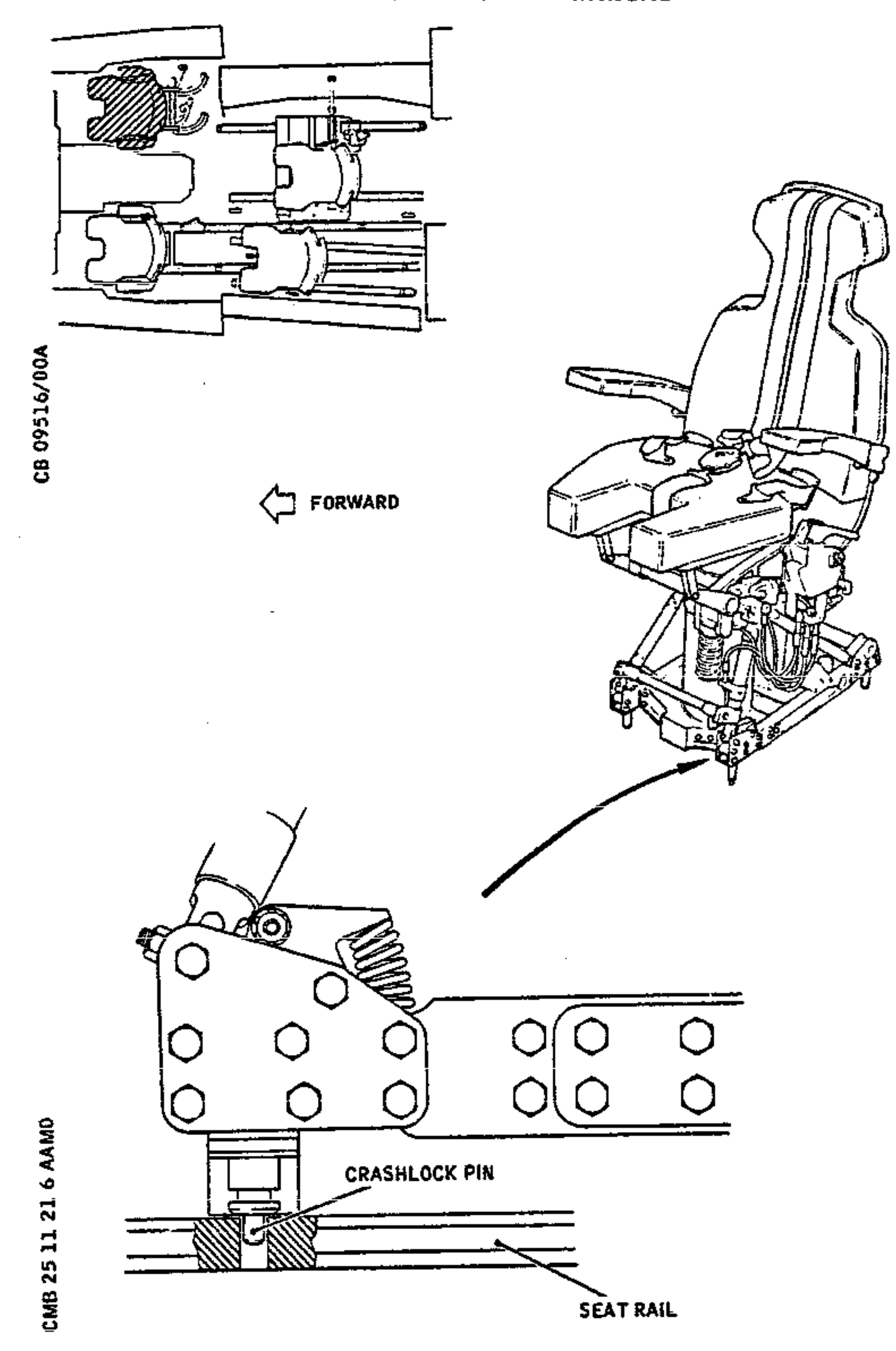
R

R component.

R E. Conclusion

R (1) Refit the seat (Ref. 25-11-21, Removal/Installation)

R (2) Check that the area is clean and remove all tools and
R equipment from the aircraft.



Co-Pilot's Seat - Crashlock Pin and Forward
Inboard Seat Rail.
Figure 602

R

SEAT MOUNTING ARMS AND RACK MECHANISM - REMOVAL/INSTALLATION

1. General

The seat mounting arms and the rack mechanism are assembled to a flight compartment floor panel. After removal of the co-pilot's seat, the rack and each arm may be removed with the panel in-situ, but removal of the remaining parts of the assembly such as the rack support block and adjusting screw bracket and the brackets on which the mounting arms pivot, require removal of the floor panel.

2. Seat Mounting Arms and Brackets (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Loctite Grade A (Ref.20-30-00,No.109)	-
Locquic N (Ref.20-30-00,No.120)	-

R B. Remove

(1) Remove the co-pilot's seat (Ref. 25-11-21, Removal /Installation).

(2) Pivot the arm and disengage it from seat rail.

(3) Remove the screw and washer securing the arm to its bracket then remove the arm, together with the washer or with the insert, spacers and washers, as applicable from the mounting arm bracket.

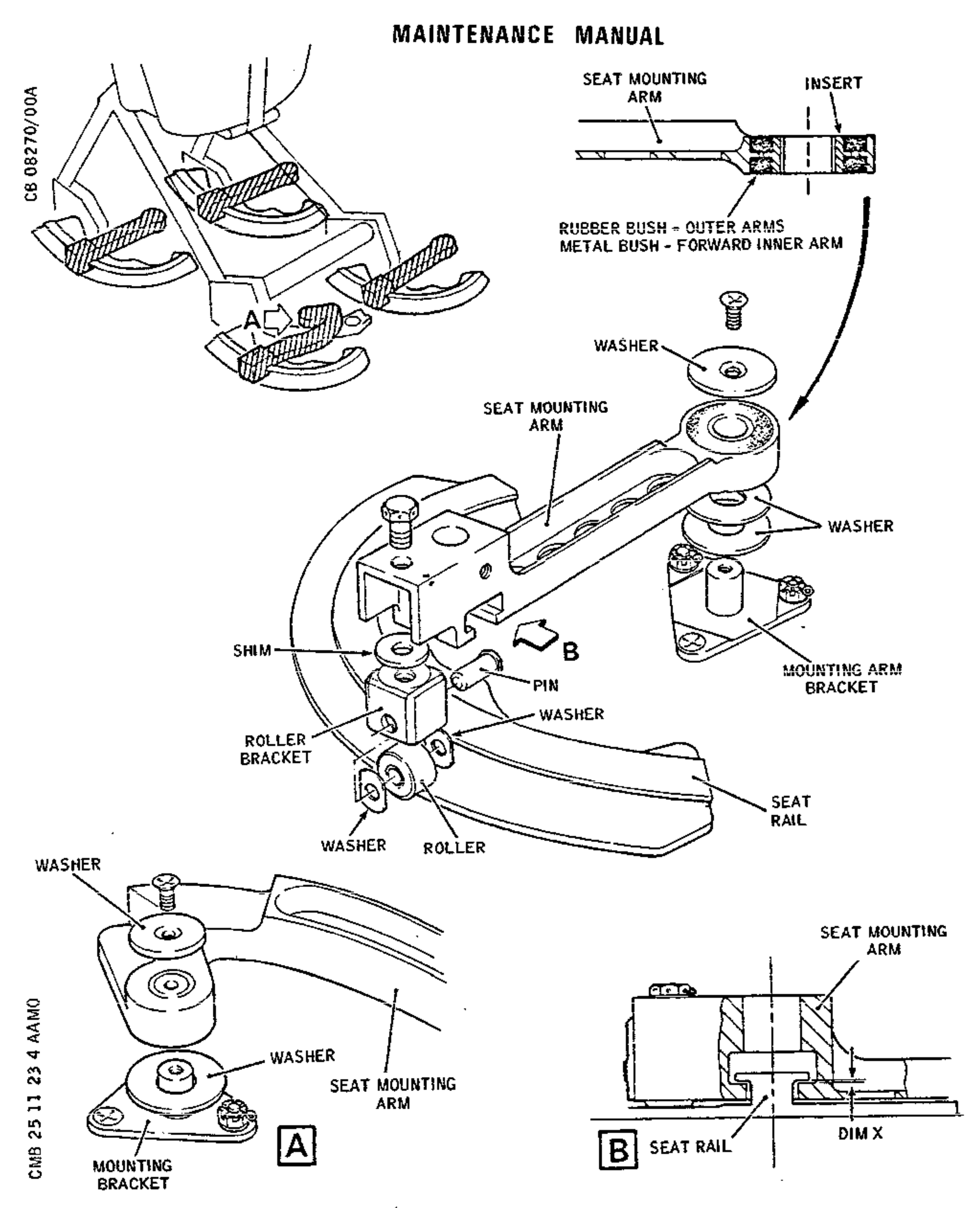
(4) If required, remove the roller from the arm:

(a) Remove the bolt securing the roller bracket to
R the arm; remove the bracket and shim.

(b) Withdraw the pin from the bracket and remove the roller and washers.

(5) Remove the floor panel to which the seat was fitted (Ref. 53-21-11, Removal/Installation).

(6) Remove the nuts and bolts securing the seat mounting arm bracket and remove the bracket.



R

Seat Mounting Arms - Installation
Figure 401

C. Install

(1) Assemble the seat mounting arm bracket to the floor
R panel using three bolts. Torque tighten the two
R slotted nuts to between 12 and 15 lbf in (0.136 and
R 0.169 mdaN) and fit split-pins. Torque tighten the
R 6 point self-locking nut to between 30 and 40 lbf in
R (0.34 and 0.45 mdaN).

(2) Install the floor panel (Ref. 53-21-11, Removal/
R Installation).

(3) Where required, fit a new roller to the arm:

(a) Assemble the roller to the roller bracket with washers and pin ensuring that the flat on the head of the pin is vertical and correctly positioned relative to the recess in the arm.

(b) Temporarily secure the roller bracket to the arm with the shim and bolt.

(4) Assemble where applicable, the insert and spacers or rubber bushes to the arm.

(5) Fit a washer (or washers as applicable) to the
mounting arm bracket and locate the arm assembly
on to the bracket; swing the arm round until the
R roller engages the seat rail. Check that the clearance
(dimension 'X') is between 0.003 and 0.007 in (0.076
and 0.17 mm). If necessary, alter the thickness of
shims to adjust the position of the rollers.

(6) Secure the arm with the washer and the bolt. Fit
R the bolt with Loctite and torque tighten to between
12 and 15 lbf in. (0.136 and 0.169 mdaN).

(7) Torque tighten the bolt securing the roller assembly to between 12 and 15 lbf in. (0.136 and 0.169 mdaN) and lock with wire.

(8) Install the co-pilot's seat (Ref. 25-11-21, Removal/ Installation).

3. Rack Mechanism (Ref. Fig. 402)

A. Equipment and Materials

DESCRIPTION	PART NO.
R Loctite Grade A (Ref.20-30-00, No.109)	-
Locquic N (Ref. 20-30-00,No.120)	-

B. Remove

(1) Remove the co-pilot's seat (Ref. 25-11-21, Removal/Installation).

(2) Remove the rack:

R (a) Remove the locking plate and spacers.

(b) Remove the screw securing the end of the rack and slacken-off the adjusting screws. Withdraw the eccentric spindle and remove the rack.

(3) Remove the floor panel (Ref. 53-21-11, Removal/Installation).

(4) Remove the two screws securing the support strap; remove the strap.

(5) Remove the two bolts securing the support block to the floor panel; remove the block.

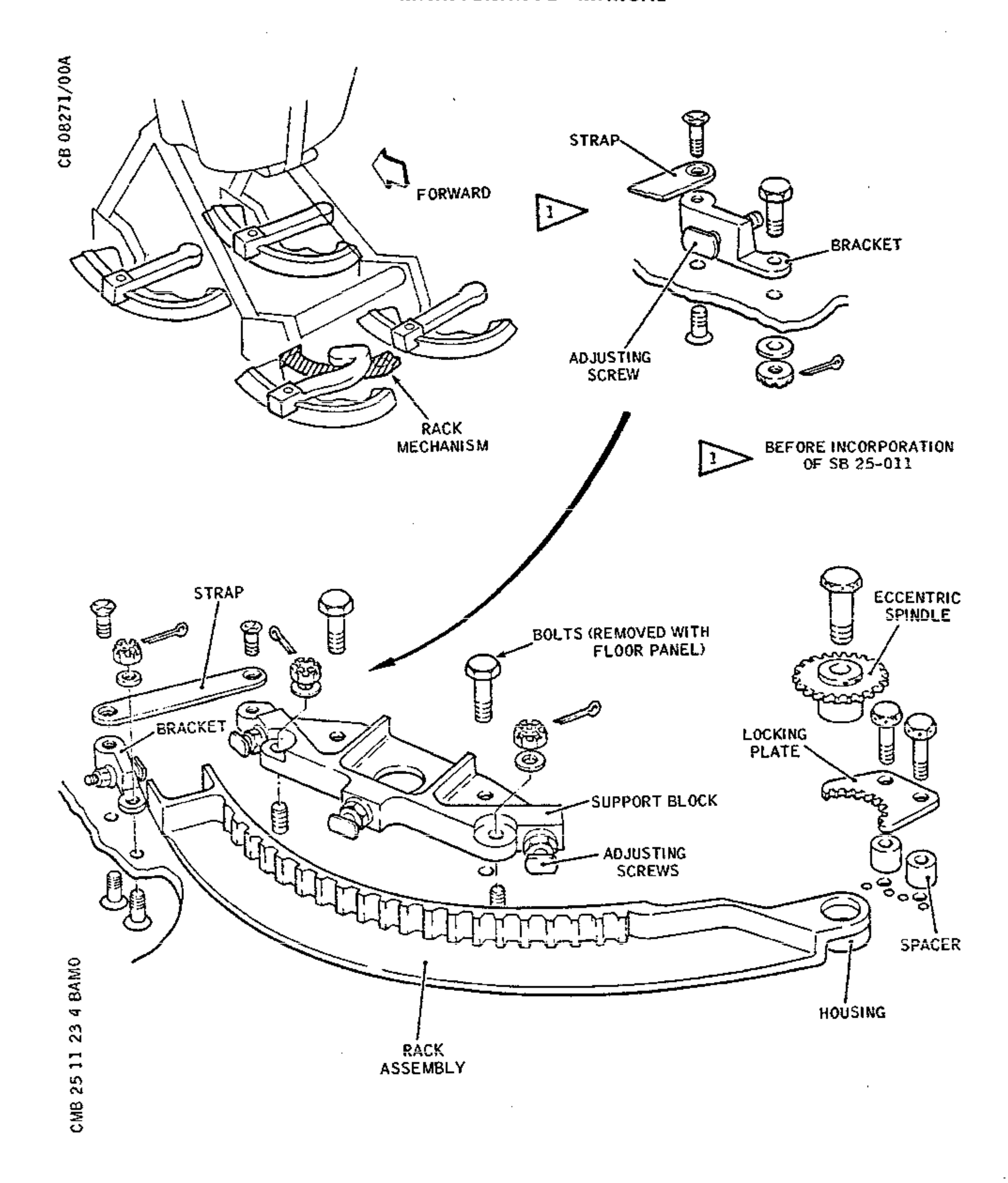
(6) Remove the two bolts securing the adjusting bolt bracket; remove the bracket.

C. Install

(1) Assemble the rack support block to the panel using the two bolts, washers and nuts torque tightened to between 12 and 15 lbf in (0.136 and 0.169 mdaN). Fit split pins.

(2) Assemble the adjusting screw bracket to the panel with the two countersunk titanium bolts. Secure one bolt with a washer and nut torque tightened to between 12 and 15 lbf in (0.136 and 0.169 mdaN) and fit a split pin; secure the other bolt with Loctite and torque tighten to between 12 and 15 lbf in. (0.136 and 0.169 mdaN).

(3) Assemble the strap to the adjusting screw bracket



Rack Mechanism - Installation
Figure 402

R

and the support block using the two countersunk fully threaded screws secured with Loctite, and torque tightened to between 12 and 15 lbf in. (0.136 and 0.169 mdaN).

(4) Install the rack by positioning its pivot end over the housing fitting in the floor panel, insert the eccentric spindle through the rack and into the housing and secure it with the bolt finger tight only. Fit the locking plate and spacer, securing the bolts finger tight only in readiness for the installation of the seat.

(5) Install the co-pilot's seat (Ref. 25-11-21, Removal/Installation).

THIRD CREW MEMBER'S SEAT ASSEMBLY - DESCRIPTION AND OPERATION

1. General

The third crew member's (3CM) seat is mounted on a secondary trolley which is movable on rails that are disposed fore-and aft on the flight compartment floor. The seat can be moved across the trolley on rails which are located transversely on its top surface.

The seat and trolley assembly can be electrically driven forward and aft by lifting the handle on the top of the control console and operating the ganged switches. A handle on the rear of the control console enables the seat to be moved manually. The controls are such that although the handles can be operated, the crashlock pins and the motor drive disconnect can only be released when the seat is positioned transversely within a band of two inches immediately to the right of the aircraft centre line. The seat can be raised and lowered either electrically or manually, but electrical operation either forward/aft or raise/lower, is only possible if the seat is facing forward. Abutment interaction of the seat and trolley controls allows the seat to be removed from the trolley without disconnection of the control mechanisms.

The seat can be manually rotated so that it faces the systems management panel at the 3CM station as for cruising, or to face forward during take-off and landing. When the seat is aligned with and facing the 3CM systems management panel it can be manually moved towards the console, either to a suitable work position or fully into the leg recess for stowage when unoccupied.

The seat has an adjustable recline backrest and a safety harness.

R Removable cushions fitted with loose covers are attached to
R the backrest and seat pan with Velcro interlocking tape.
R Exposed areas of the seat back are padded with foam sheet and
R covered with black ambla fabric.

2. Seat Unit (Ref. Fig. 001)

The seat unit basically comprises a hinged backrest fitted with adjustable armrests and a seat pan, mounted on top of a vertical inner tube that can rotate in a pair of outer tubes; the outer tube is secured to the seat base structure which has adjustable mounting rollers; a central mounting roller at the front end provides a support when the seat is stowed. A control console is mounted on the left side of the seat pan

and a seat height manual adjustment handle is mounted on the right side of the seat pan. A seat rotation lock lever is mounted below the harness crotch strap recess in the centre underside of the seat pan. A safety harness inertia reel locking handle is fitted on the left side under the seat pan.

An electrical motor for seat height adjustment is mounted to the rear of the vertical outer tube. The motor is connected, by a geared sprocket and chain drive, to the bottom end of a tube that has a screwjack nut secured to its upper end. When the motor is operated it rotates the screwjack nut to raise or lower the seat pan in relation to the seat base. Limit switches, one fitted on the top of the vertical outer tube and another on the seat base, cut out the electrical supply to the seat height adjustment motor at the upward and downward limits of travel respectively.

The seat height adjustment handle is connected, by a geared sprocket and chain drive, to the top end of the screwjack mechanism.

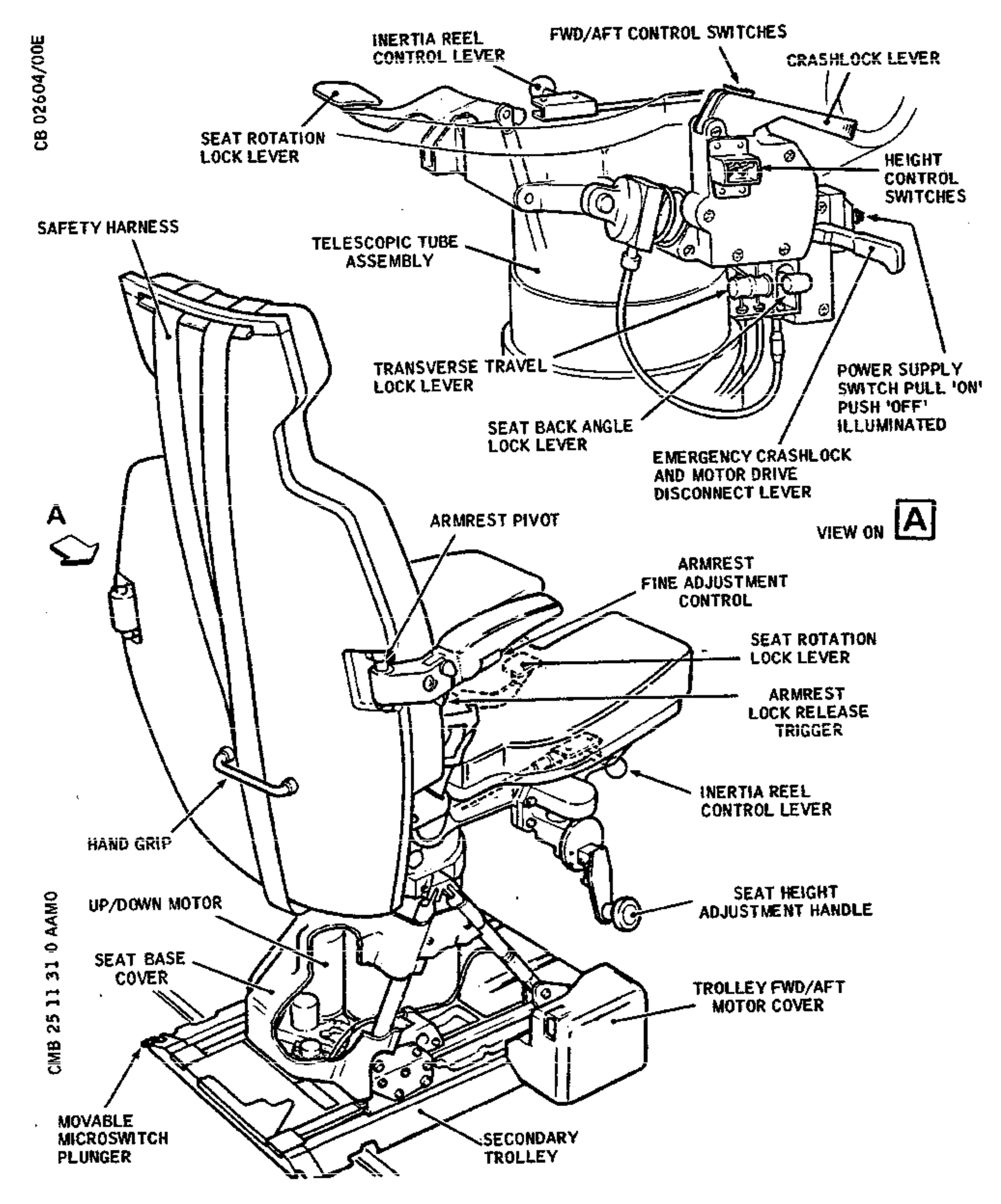
The safety harness inertia reel locking handle is connected by a cable to the inertia reels mounted on the lower forward face of the seat back. The waist straps and the anti 'G' straps are adjustable for length.

A recess at the front end of the seat pan accommodates the seat rotation lock lever. The lever is connected by linkage to a locking catch in the telescopic tubes which can be selected to engage rotation stops at 15 deg intervals between the outboard and forward facing positions. A microswitch is fitted under the seat pan and is operated by a striker block so that when the seat is facing forward the electrical translation and height circuits then become operative.

A knurled barrel beneath the armrest is used for adjusting the angle of the armrest when down. A latch in the pivot block, automatically locks the armrest in the vertical, fully raised, position, and holds the armrest in this position until the trigger is depressed for lowering. When in the vertical position, the armrest can be rotated about a vertical hinge to stow behind the seat back. An interlock prevents inadvertent lowering of the armrest when in the stowed position.

3. Control Console (Ref. Fig. 001)

The control console accommodates the crashlock release lever and the emergency crashlock and motor drive disconnect lever. These two levers control the movement of the seat in the fore-and-aft sense.



Third Crew Members Seat and Secondary Trolley
Figure 001

The crashlock release lever at the top of the console is cable-connected to a push rod on the seat base. This push rod abuts the crashlock flap on the secondary trolley (Ref. para.4).

The emergency crashlock and motor drive disconnect lever on the rear end of the console is cable-connected to another push rod on the seat base. This push rod abuts a motor disconnect flap on the secondary trolley (Ref. para.4).

A power supply switch, with an illuminative cover, is located on the rear end of the console. Two ganged toggle switches, controlling the electrically operated fore-and-aft motor, are located in a recess in the top of the crashlock release handle. Two separate toggle switches, controlling the electrically operated seat height adjustment motor, are located at the forward end of the console sideplate.

The transverse travel lock lever is cable-connected to a lever operating a single lock pin which engages with holes in the aft rail on top of the secondary trolley.

The seat back angle lock lever releases the seat back lock to enable adjustment in tilt of the seat back. The lever is connected by cable to a spring-loaded plunger engaging with a spring-pot mechanism which pre-loads the seat back in the vertical position.

4. Secondary Trolley (Ref. Fig.001 and 002)

The secondary trolley is basically a movable seat platform. It is roller mounted. Two rails are bolted on the top surface of the trolley to provide a seat mounting.

An electrical drive motor is mounted at the rear outboard edge of the trolley, and its drive gear engages a gear rack on the outboard fore-and-aft rail on the flight compartment floor.

The trolley structure accommodates a crashlock pin assembly, a motor drive disconnect mechanism assembly, three controlling microswitches and the electrical panel for seat control.

The trolley crashlock pin is spring-loaded to engage in holes in the outboard rail on the flight compartment floor. The pin is withdrawn through a linkage by operation of the crashlock release lever when the upper lever on the control console is raised to operate the pushrod in the seat base to operate the relevant control flap on the trolley. The motor drive disconnect operates through a similar mechanism, but this mechanism also picks up the crashlock pin operating linkage to withdraw the crashlock pin from the rail at the same time as disconnecting the drive. The control flaps

ensure that the disconnections can only be made when the seat is within a two inch band immediately to the right of the aircraft centre line.

To prevent collision between the 3CM seat and captain's seat, when the former is motored forward, or the latter rearward, an inter-seat strut (Ref. 25-11-00, Crew Seat Installation) is fitted between the two seats and is attached to the rear of the captain's seat. When a collision condition occurs, the rear end of the strut contacts a microswitch striker on the 3CM seat to disarm the relevant translation circuit of both seats. A foot pedal on the secondary trolley of the 3CM seat, when operated, permits the strut to override the micro-switch mechanism, thus allowing the captain's seat to proceed rearward if unobstructed.

Two limit microswitches are fitted, one near the inboard edge of the trolley and the other set back from the edge. These are operated to disarm the 3CM electrical circuit when their plungers contact fixed stops that are bolted to the flight compartment floor (Ref. 25-11-00), at the absolute forward and aft limits of translation.

5. Operation (Ref. Fig.001 and 002)

A. Seat Transverse Movement

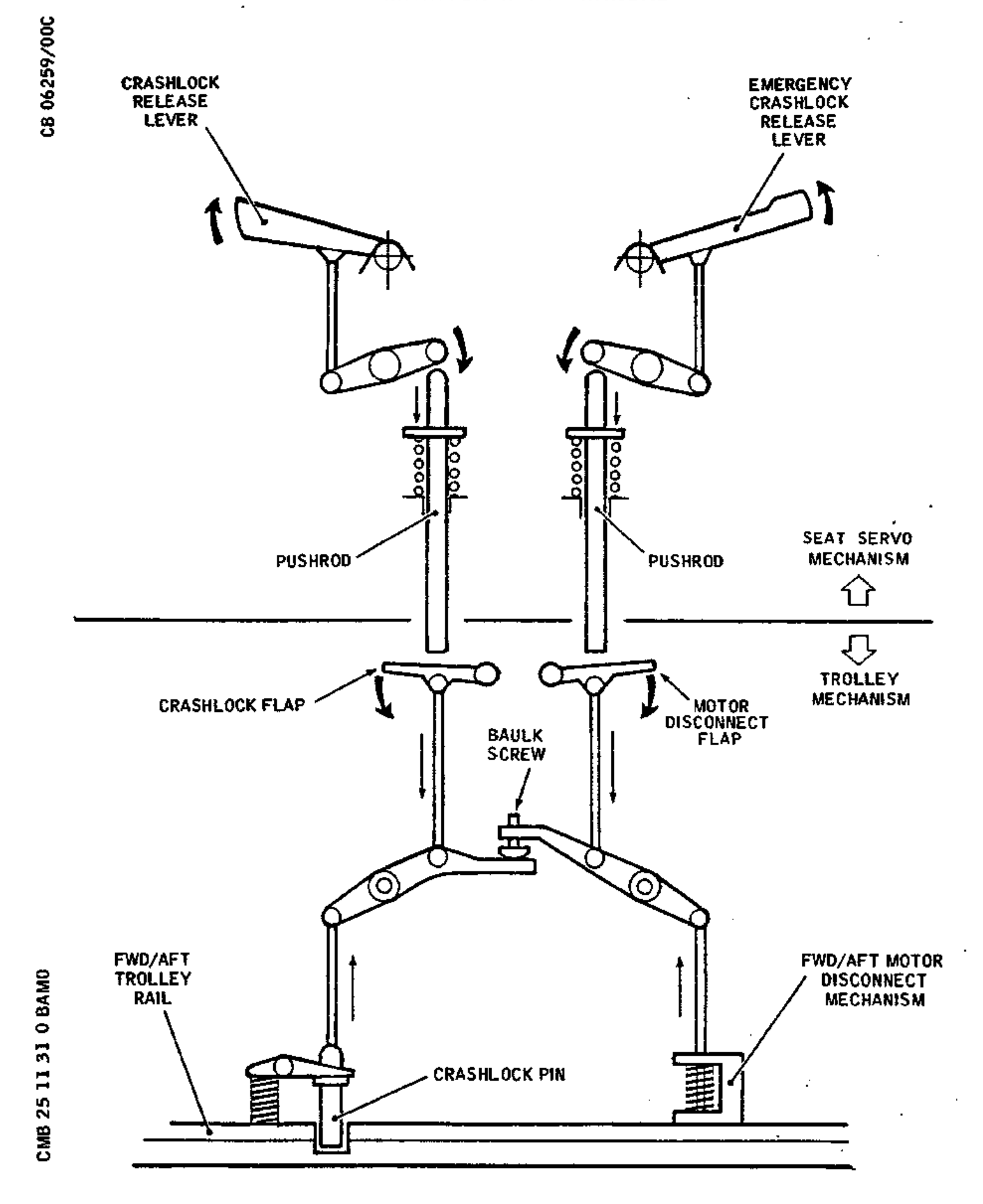
To allow occupation of the seat it must be withdrawn from the leg recess in the 3CM systems management panel in which it is positioned for stowage.

To allow transverse movement, lift the transverse travel lock lever and move the seat as required. The seat base can be locked at any one of six positions when the handle is released. The locking positions are: (1) fully outboard (in leg recess), (2) on aircraft centre line, (3) one inch (25.4 mm) each side of centre line, (4) 2.5 inches (63.5 mm) to the left side of centre line, (5) 2.0 inches (50.8 mm) to the right of centre line.

B. Manual Fore-and-Aft Translation

To allow manual fore-and-aft translation position the seat so that it is within the 2.0 inch (50.8 mm) band immediately to the right of the aircraft centre line, and lift the emergency crashlock and motor drive disconnect lever. This withdraws the crashlock pin and disconnects the electrical drive motor (Ref. para.4), so that the trolley can be moved fore or aft as required.

C. Electrically Operated Fore-and-Aft Translation



Secondary Trolley Mechanical Controls -
Schematic Diagram
Figure 002

Three preliminary conditions are necessary to make electrically operated fore-and-aft translation possible, i.e. the seat must be positioned within the 2 inch (50.8 mm) band immediately to the right side of the aircraft centre line (to allow crashlock pin withdrawal); it must be facing forward, and electrical power must be available as indicated by illumination of the power supply (pull 'On' - press 'Off') switch.

When the preliminary conditions are satisfied lift the crashlock release lever and move the switch gang-piece (in the top face of the handle) in the same direction as translation is required.

D. Seat Rotation

The seat can be manually rotated when the seat rotation lock lever is depressed. To lock, release the lever to allow the locking catch to engage at the desired seat position.

E. Seat Height Adjustment

The seat can be manually or electrically adjusted for height.

For manual adjustment disengage the height adjustment handle from the slot in the locking plate, then turn the handle in the required direction. The handle is spring loaded to the inward position so that when it is engaged in the locking plate slot it is locked against rotation.

For electrically operated adjustment ensure that power is available (Ref. para.C), and that the seat is facing forward, then operate both height control switches in the same direction as movement is required. When the seat is at the correct height, release the switches to allow them to return to the centre position.

F. Seat Back Angle Adjustment

To adjust the seat back angle exert pressure against the back of the seat then raise the lock release lever at the side of the seat control console; either relax or exert pressure to counterbalance the spring pot loading at the desired seat back angle, then release the lever to engage the locking plunger in the nearest available slot in the spring pot locking nut flange.

G. Safety Harness Control

The shoulder harness inertia reel lock lever has three setting positions.

When the lever is set to the centre position the reel is in the inertia lock condition; this allows the harness to move freely when gradual withdrawal pressure is applied, thus allowing the 3CM to lean forward as desired, but causing it to lock and securely hold the 3CM when any sudden forward movement is applied.

When the lever is set to the rear position the inertia reel is in the locked condition; the harness can retract into the reel but forward movement (withdrawal) is prevented.

When the lever is set to the forward position the inertia reel is in the unlocked condition allowing the harness to be freely withdrawn from or retracted into the reel. From this position , the lever is spring-loaded to return to the mid position.

The waist straps and the anti 'G' straps can be adjusted in length as required to suit the seat occupant.

H. Functional Description (Ref. Fig.003 and 004)

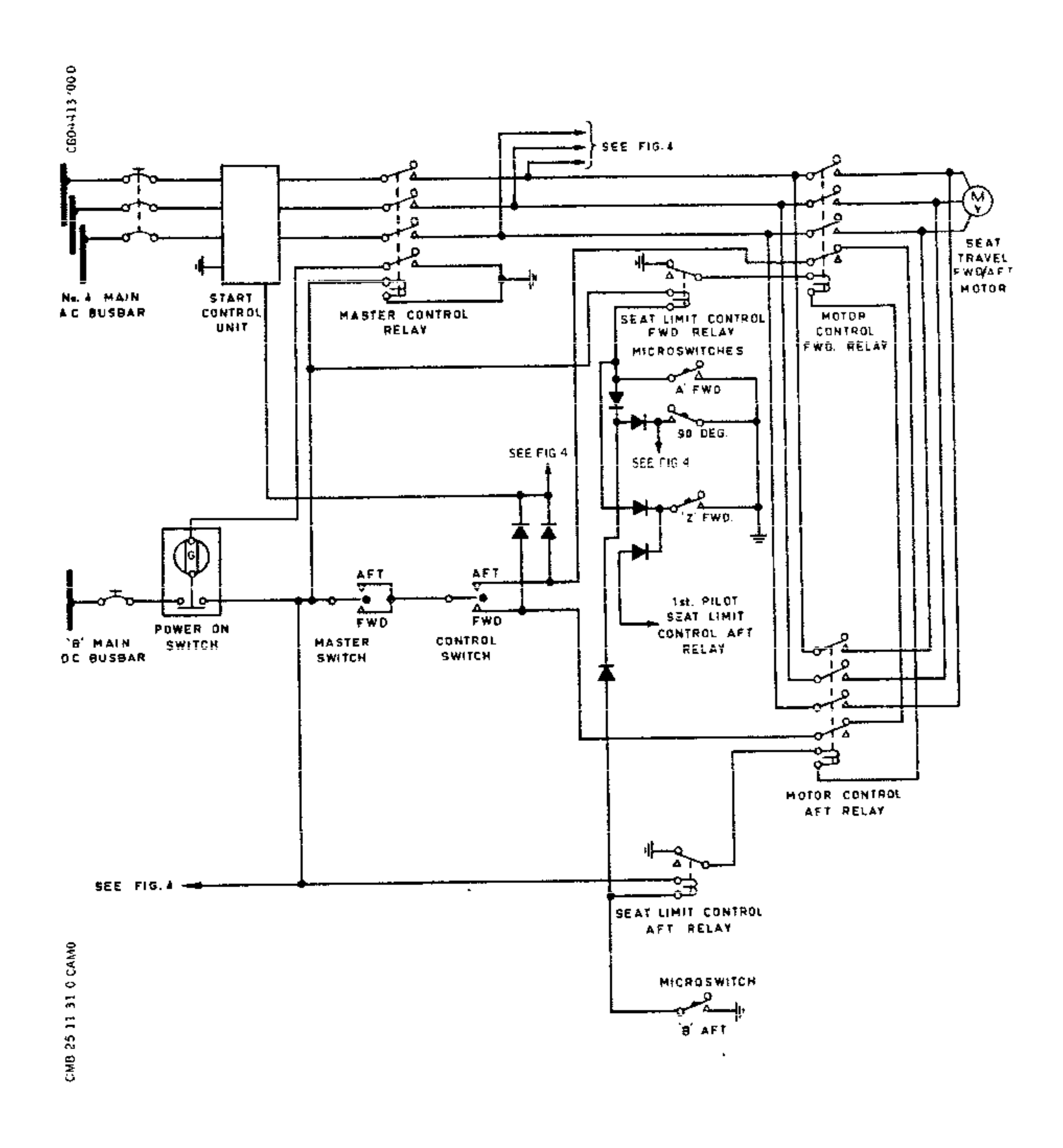
With the power supply switch on the seat control console pulled out 28V d.c. power is supplied to the seat control circuits. The master control relay is directly energized as indicated by the green indicator lamp on the seat control console being illuminated. A three phase supply is then armed via the relay contacts in readiness to drive the forward/aft and up/down seat travel motors.

When the switches controlling either of the two seat travel motors are operated a 28V d.c. signal is transmitted to the start control unit. This initiates circuitry which drops the voltage in one phase to the motor ensuring that the seat starts to move slowly and smoothly. In a fraction of a second the phase voltage returns to normal, and the seat continues to move at a steady rate.

Seat Movement - Forward and Aft (Ref. Fig. 003)

NOTE: The forward/aft and vertical control circuits are inhibited until the seat is facing forward so that the 90 deg seat movement microswitch is extended.

With both control switches located at the top of the crash-lock release lever, selected to the FWD position the motor

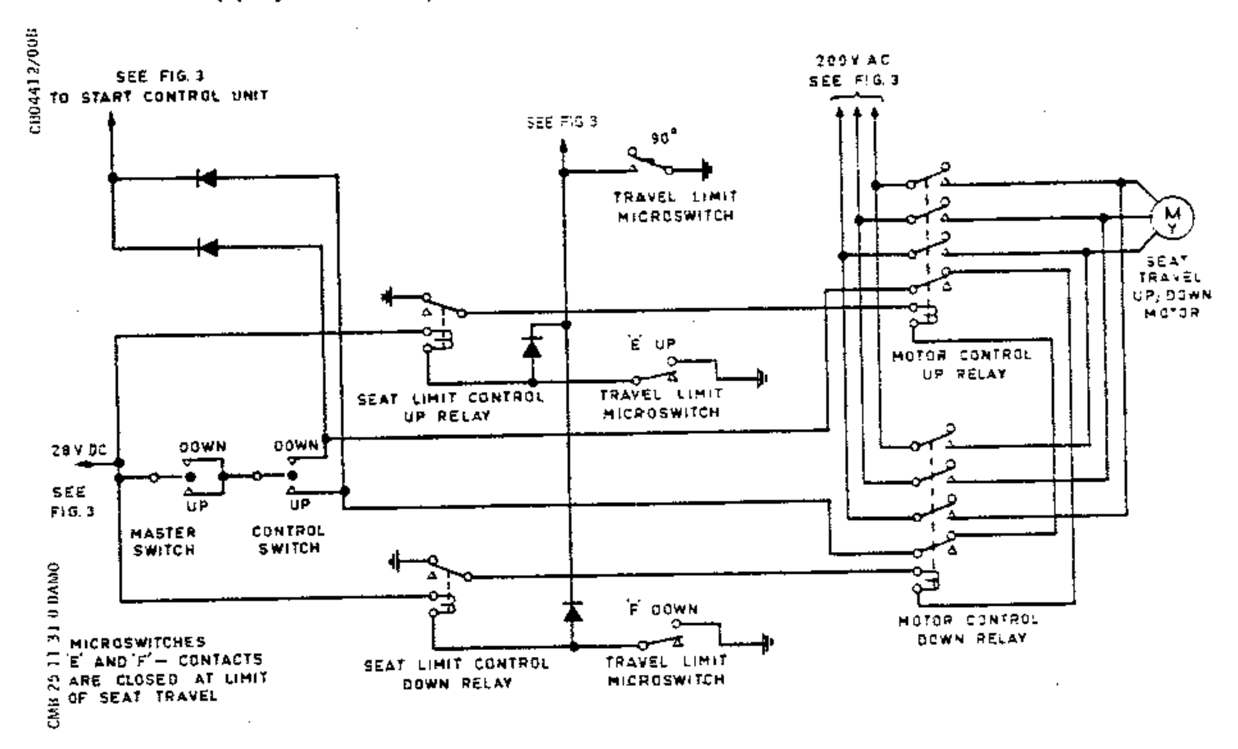


R

Seat Control Fwd/Aft Travel
Figure 003

control forward relay is energized and the seat is driven forward until stopped by either the 'A' or 'Z' forward travel limit microswitch being depressed. The seat limit control forward relay becomes energized, this in turn causes the de-energization of the motor control forward relay interrupting the supply to stop the motor. Collision with the captain's seat being driven aft is averted as both motors are stopped simultaneously when the 'Z' travel limit switch is depressed.

With both control switches selected to the AFT position the motor control aft relay is energized and the seat is driven aft until stopped by the 'B' aft travel limit microswitch being depressed. The seat limit control aft relay becomes energized, this in turn causes the de-energization of the motor control aft relay interrupting the supply to stop the motor.



R Seat Control - Up/Down Travel
Figure 004

Seat Movement - Up and Down (Ref. Fig. 004)

NOTE: The up/down control circuits are inhibited unless

the 90 deg seat movement microswitch is extended.

With both control switches, located at the forward end of the seat console sideplate, selected to the UP position the motor control up relay is energized and the seat is driven up until stopped by the 'E' up travel limit micro-switch being extended. The seat control limit up relay becomes energized, this in turn causes the de-energization of the motor control up relay interrupting the supply to stop the motor.

With both control switches selected to the DOWN position the control down relay is energized and the seat is driven down until stopped by the 'F' down travel limit micro-switch being extended. The seat limit control aft relay becomes energized, this in turn causes the de-energization of the motor control up relay interrupting the supply to stop the motor.

THIRD CREW MEMBER'S SEAT ASSEMBLY - TROUBLE SHOOTING

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

1. General

Faults are dealt with on a probability basis and identified as a result of testing.

A defect can be isolated with the aid of trouble shooting procedures (Ref. para.3), and traced through OK and NOT OK paths to the appropriate charts or other specified rectification action as may be necessary. If a defect occurs, perform the appropriate rectification action, then repeat the operation at which the defect was encountered, to ensure that the operation is OK.

Bracketed numbers in the procedures and charts indicate items on the component identification table (Ref. Table 101). The table provides information, including component location, required for rectification. Each chart specifies any ground equipment required for that particular task.

All procedures dealing with trouble shooting are based on the assumption that electrical wiring is serviceable, and that electrical power is available, unless otherwise stated. If the fault is not rectified, check the wiring in accordance with the Wiring Diagram Manual (Ref. Table 101).

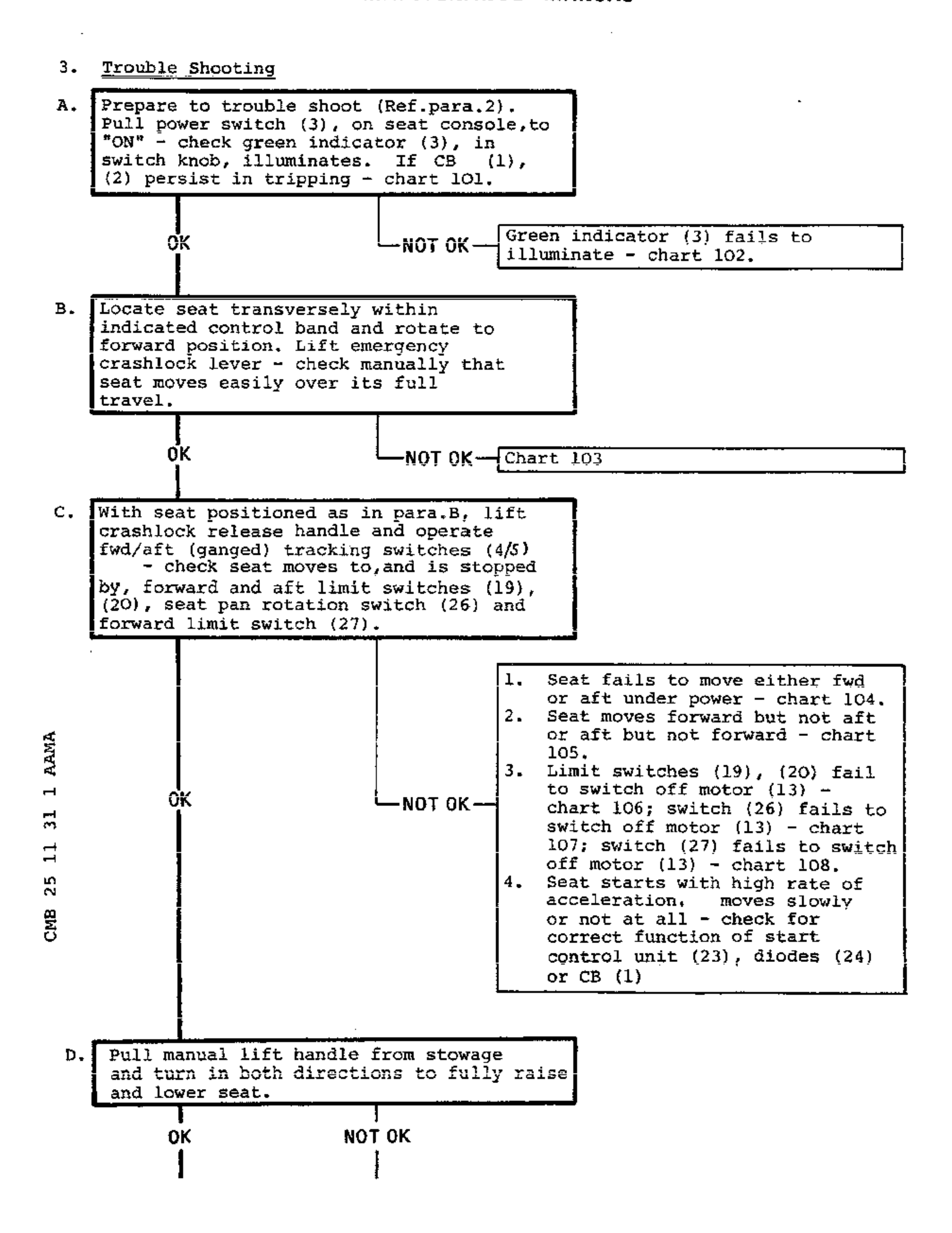
R NOTE: Malfunctioning diodes are treated as wiring faults.

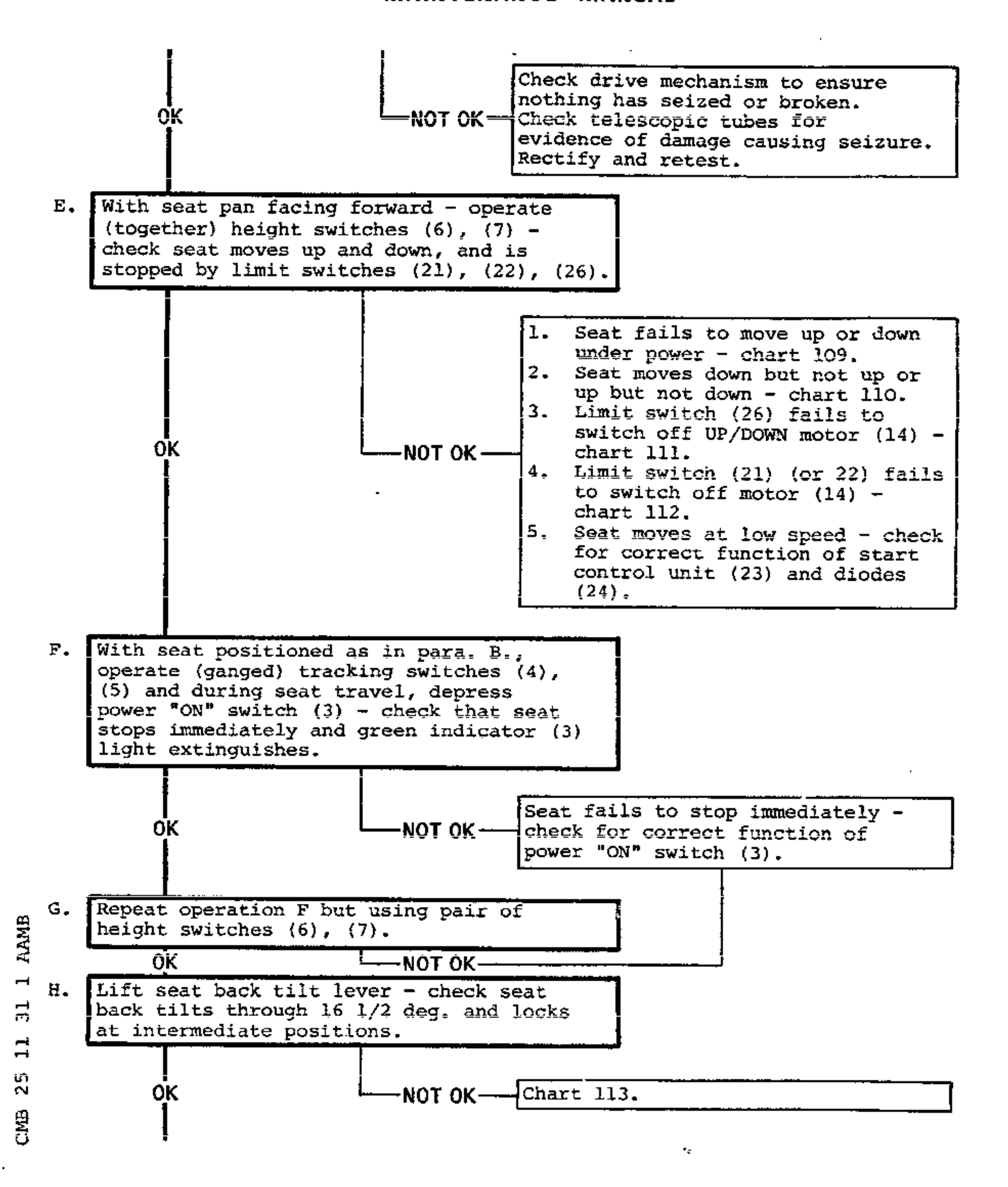
2. Preparation

A. Ensure that the appropriate circuit breakers are set (Ref. Table 101).

B. Make available electrical ground power (Ref. 24-41-00).

3. Trouble Shooting





CMB 25 11 31 1 AAMB

J. Set inertia harness control lever to position "111". Release lever, check that it returns to position "1", that harness can be slowly withdrawn from reel, that if harness is released it is automatically taken up by the reel. Withdraw strap from reel with sudden jerk - check movement blocked by reel and when released strap makes audible rattling sound as it winds back on reel.

OK

NOT OK — Lever fails to return to position "1", reel fails to release or lock, wind back after jerk is not accompanied by rattling sound - check route of control cable or renew reel assembly.

K. Move lever to position "111" and release it - check that lever returns to position "1", and strap moves freely in both directions.

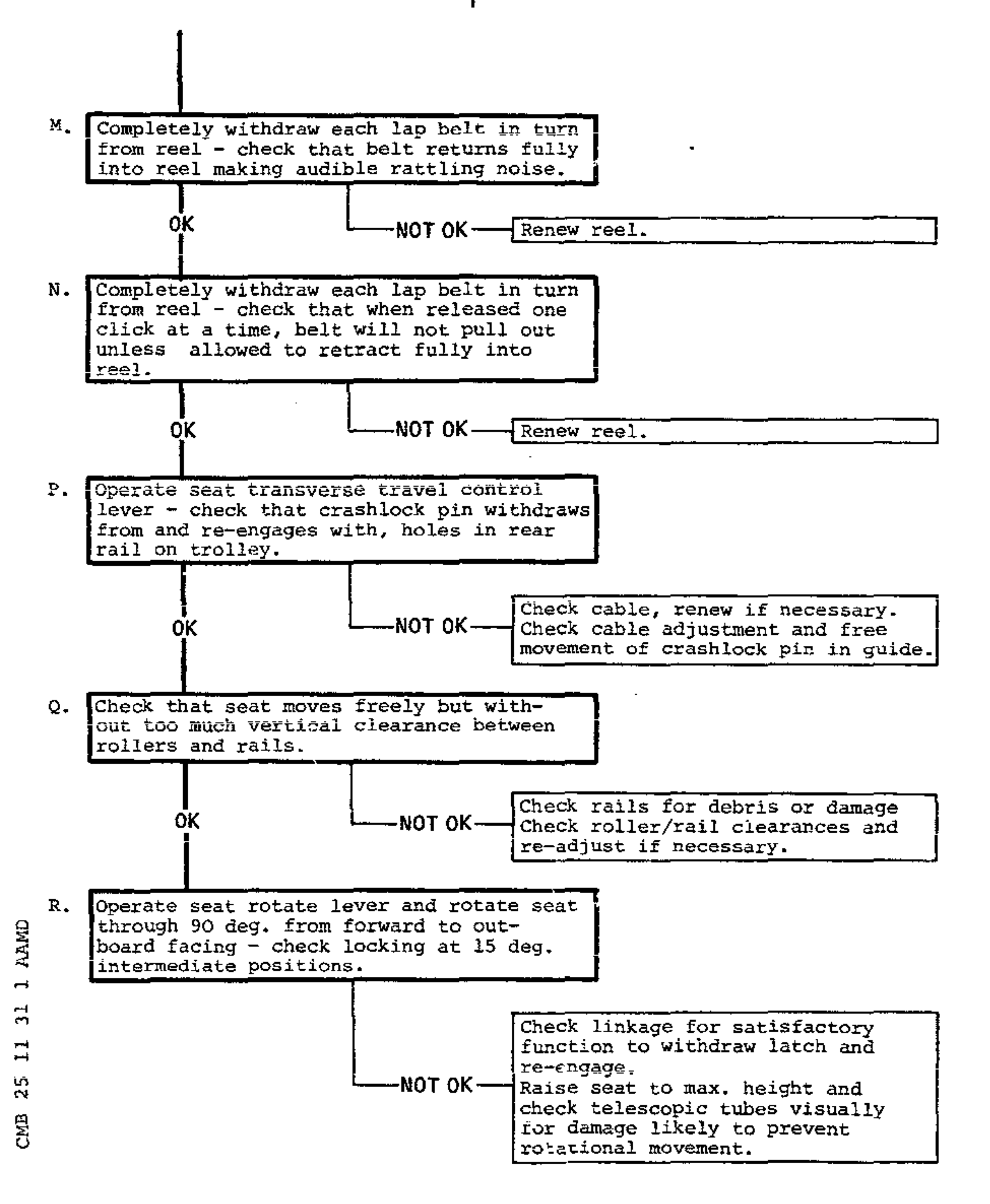
OK

NOT OK

L. Pull out part of strap and hold it still, move lever to position "11" - check forward movement of strap is blocked and when released, strap winds on reel making audible rattling sound.

OK

NOT OK



CMB 25 11 31 1 AAMD

CIRCUIT BREAKER (1), (2) PERSISTS IN TRIPPING.

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES 200V, 3Ph; 28V DC	-
MULTIMETER	-
CIRCUIT BREAKER SAFETY CLIPS	-

Set switches (3), (4/5), (6/7) to "OFF" - check if CB still tripping.

YES → Renew CB (1) or (2).

↓ NO

Set switches progressively to function position until CB trips - disconnect equipment in this circuit progressively and check if fault is cleared.

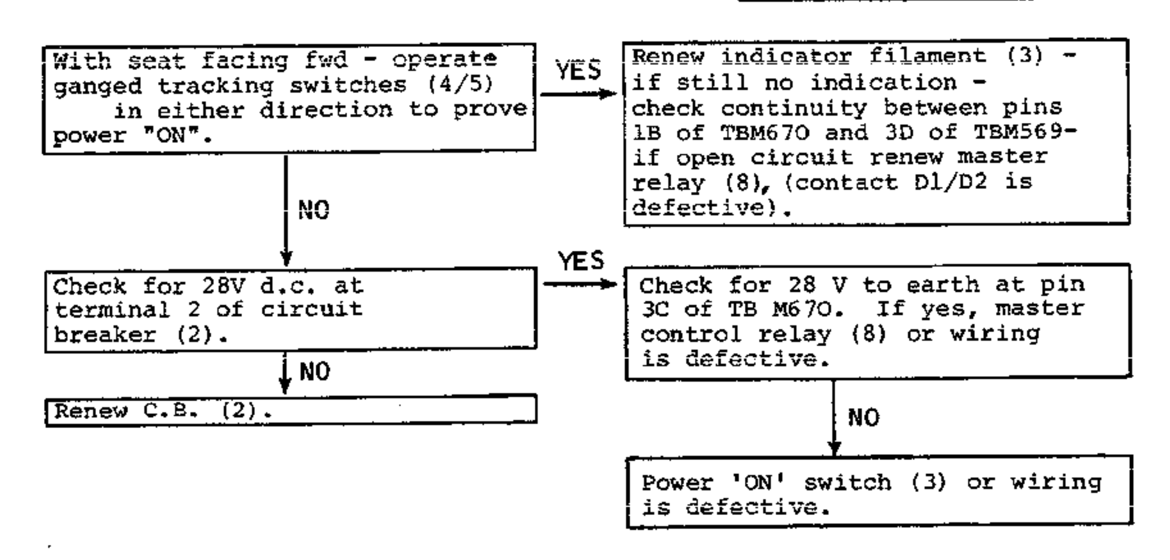
↓ NO

Check for wire to wire short circuit or short circuit to earth.

CMB 25 11 31 1 BAMO

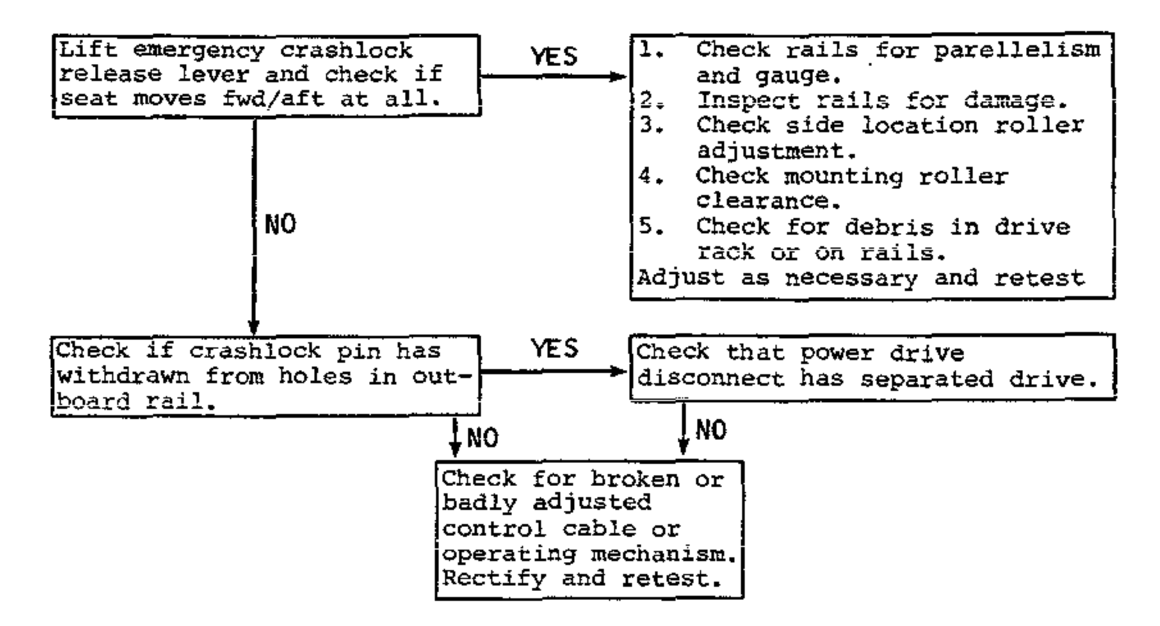
Chart 101

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V, 3Ph; 28V D C	-
MULTIMETER	-
CIRCUIT BREAKER SAFETY CLIPS	-



CMB 25 11 31 1 CAMO

Chart 102



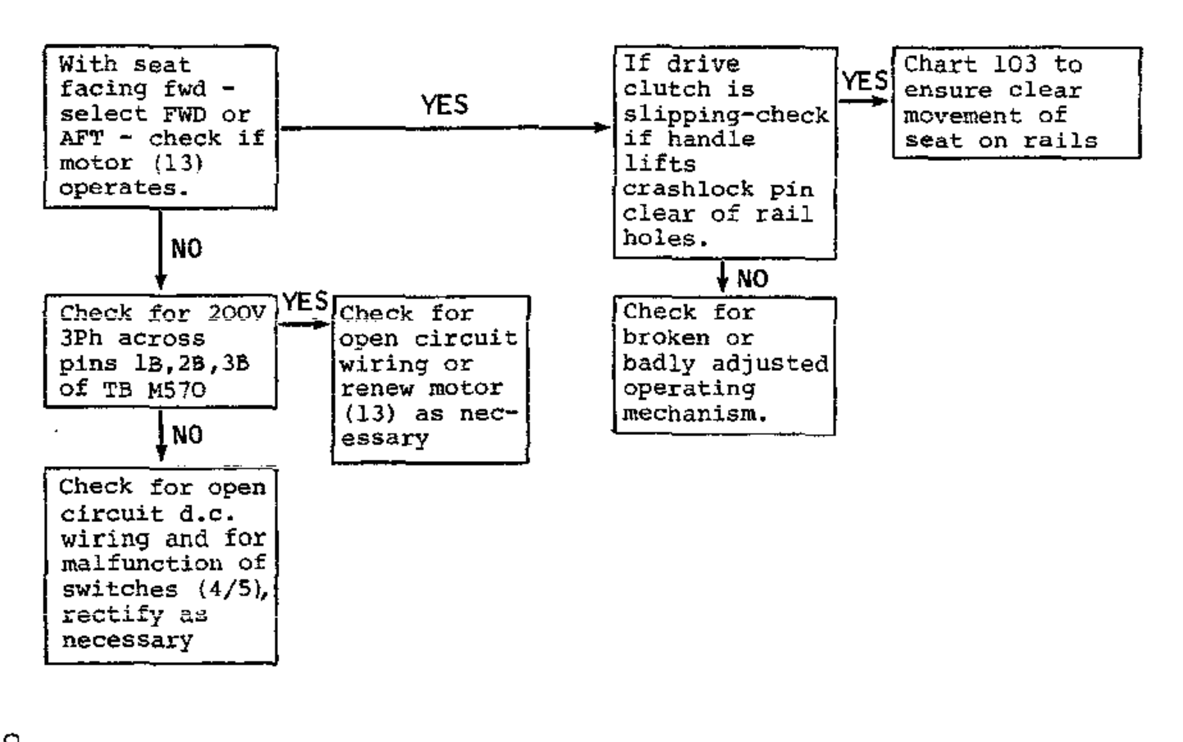
CMB 25 11 31 1 DAMO

Chart 103

SEAT FAILS TO MOVE EITHER FWD OR AFT UNDER POWER

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES:	
200V, 3Ph;28V D C	-
MULTIMETER	-
CIRCUIT BREAKER SAFETY CLIPS	-

WARNING: DO NOT ALLOW THE DRIVE CLUTCH TO SLIP UNNECESSARILY.



CMB 25 11 31 1 EAMO

Chart 104

SEAT FAILS TO MOVE FORWARD OR
SEAT FAILS TO MOVE AFT

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES:	
200V,3Ph;28V DC	-
MULTIMETER	-
CIRCUIT BREAKER	
SAFETY CLIPS	-

Check for 28V dc across terminals X1, X2 of motor fwd control relay (9) (or aft relay (10)
- YES → Renew fwd control relay (9) (or aft relay (10)
- NO ↓

Check for 28V at terminal X1 of fwd control relay (9) (or aft relay (10)
- YES → Check earth polarity at terminal 8 of seat limit fwd relay (15) (or aft relay (16))
  - YES → Check for 28V dc across terminals 3,7 of fwd limit relay (15) (or aft relay (16))
    - YES → Check fwd limit switch (19) (or aft limit switch (20)) for correct function - adjust or renew striker/switch
    - NO → Renew relay (15) or (16)
- NO ↓

Check for 28V dc at terminal D2 of motor aft control relay (10) (or fwd relay (9))
- YES → Check link to relay (9) (or (10)) or renew relay (10) (or (9))
- NO ↓

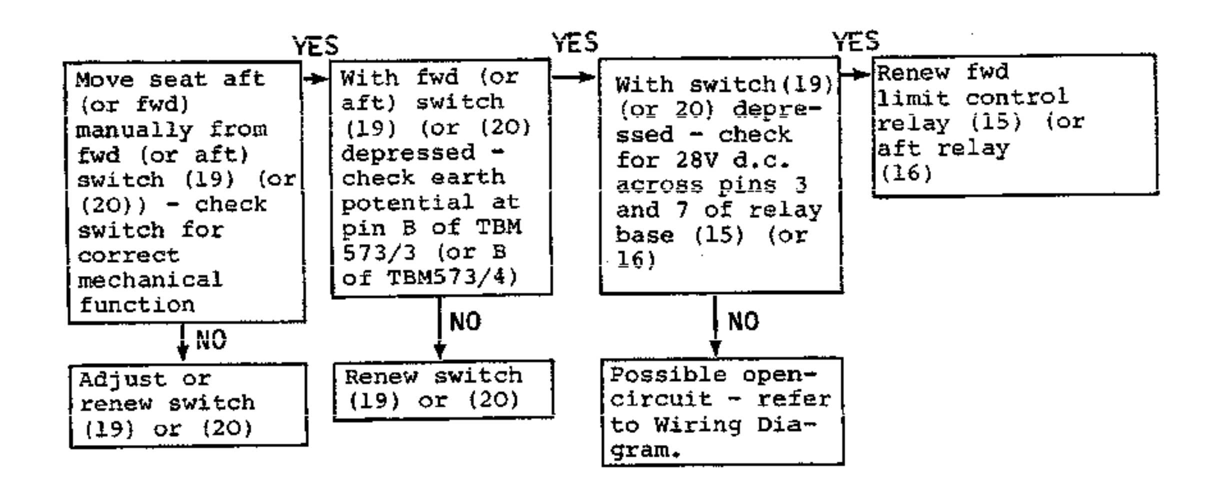
Check for 28V dc at terminal 1 (or 3) of control switch (5) and 1(or 3 of master switch (4)
- NO → Renew switch (4) or (5)

CMB 25 11 31 1 FAMO

Chart 105

FORWARD OR AFT LIMIT SWITCH (19) OR (20) FAILS TO SWITCH OFF FWD/AFT MOTOR (13)

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V,3Ph;28V DC	-
MULTIMETER	-
CIRCUIT BREAKER SAFETY CLIPS	-



CMB 25 11 31 1 GAMO

Chart 106

90 DEG LIMIT SWITCH FAILS TO SWITCH OFF FWD/AFT MOTOR

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES:	
200V, 3Ph; 28V DC	-
MULTIMETER	-
CIRCUIT BREAKER	
SAFETY CLIPS	-

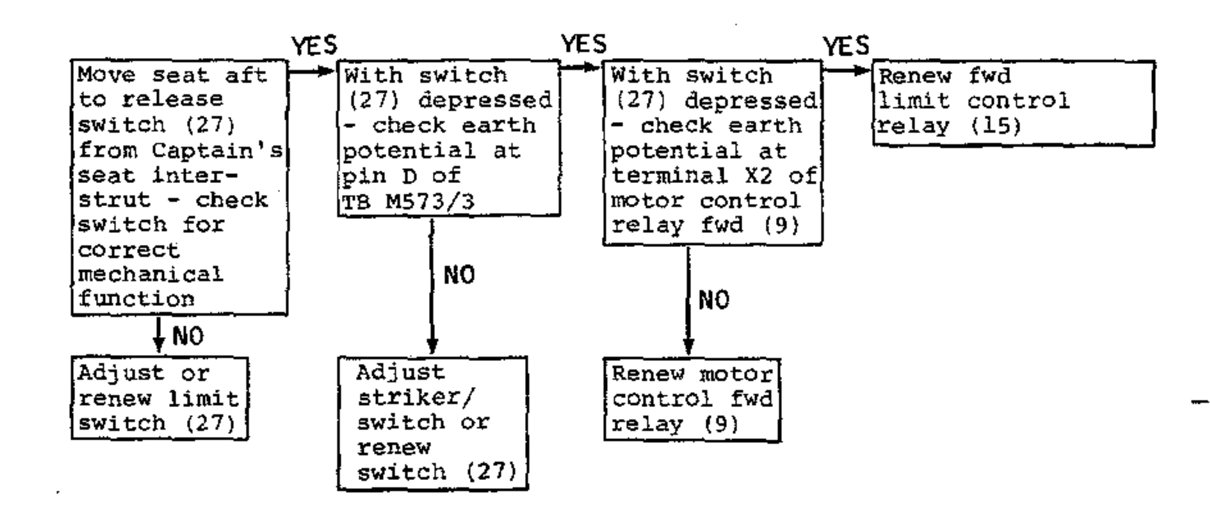
CMB 25 11 31 1 HAMO

Chart 107

Printed in England

ANTI-COLLISION LIMIT SWITCH FAILS TO SWITCH OFF FWD/AFT MOTOR (FWD MODE ONLY)

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V,3Ph;28V DC	-
MULTIMETER	-
CIRCUIT BREAKER SAFETY CLIPS	-



CMB 25 11 31 1 JAMO

Chart 108

SEAT FAILS TO MOVE UP OR DOWN UNDER POWER

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO
POWER SUPPLIES: 200V,3Ph;28V D C	-
MULTIMETER	-
CIRCUIT BREAKER SAFETY CLIPS	-

Operate switches on side of console and check if motor operates.

YES → If motor runs but seat does not move up or down;
1. Check drive mechanism to ensure nothing has seized or broken.
2. Check telescopic tubes for evidence of damage causing seizure.
3. Renew motor (14) to ensure satisfactory motor output clutch settings.

Retest after every check.

NO ↓

Check for 200V 3Ph at pins 4B, 5B, 6B of TBM570.

YES → Renew motor (14).

NO ↓

Check for 28V dc at terminal 2 of control switch (7).

YES → Renew switch (7).

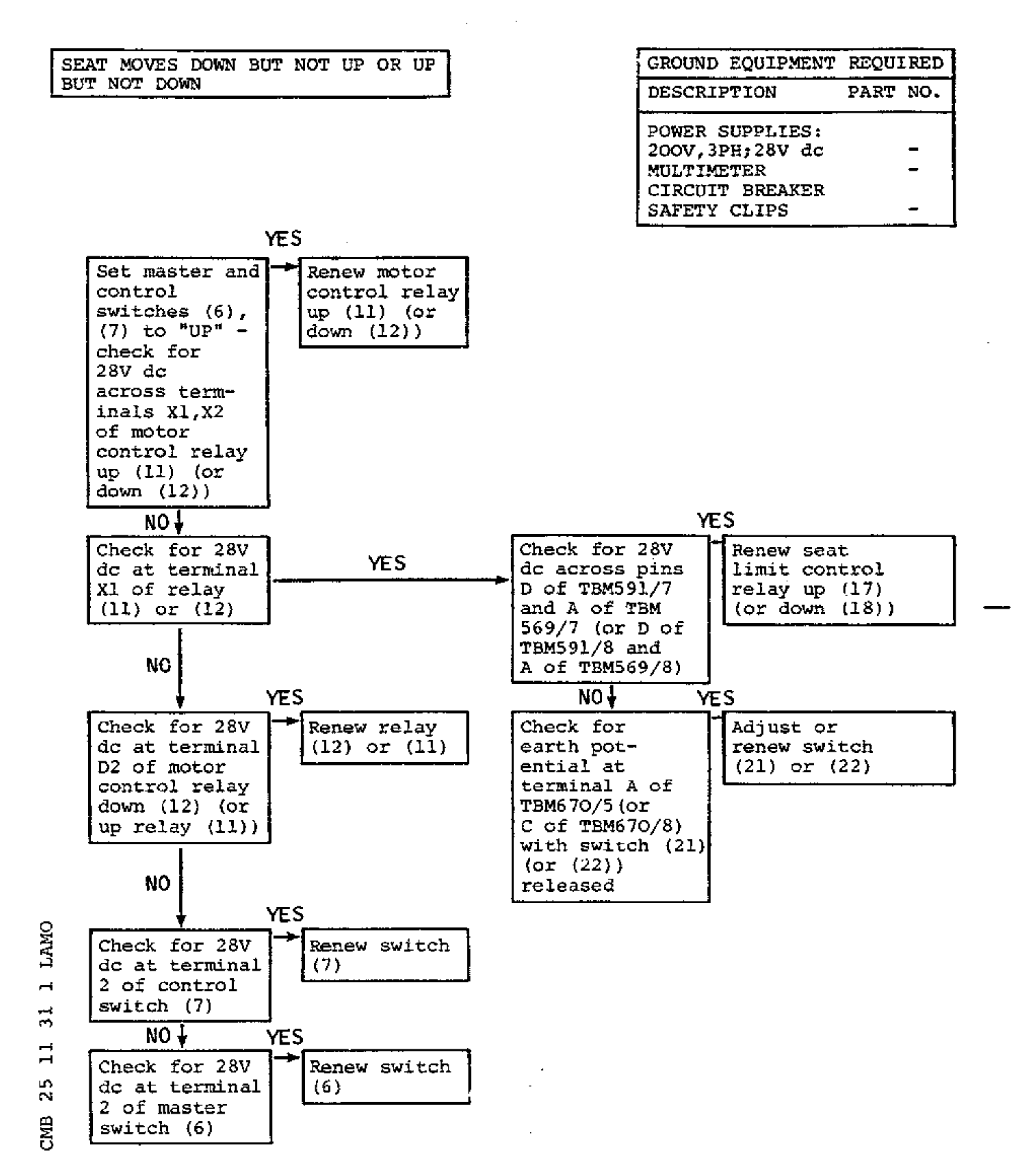
NO ↓

Check for 28V dc at terminal 2 of master switch (6).

YES → Renew switch (6).

CMB 25 11 31 1 KAMO

Chart 109

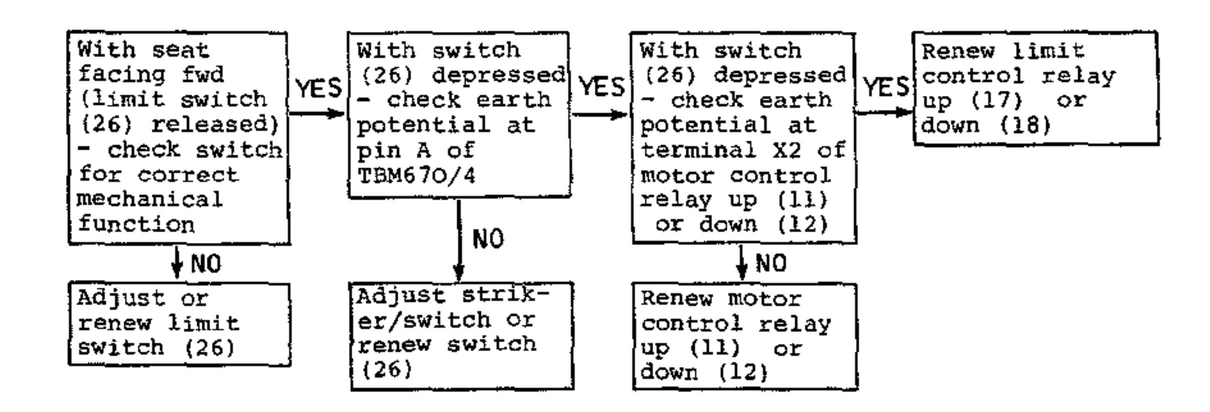


CMB 25 11 31 1 LAMO

Chart 110

90 DEG LIMIT SWITCH FAILS TO SWITCH OFF UP/DOWN MOTOR (14)

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V,3Ph;28V DC	-
MULTIMETER	-
CIRCUIT BREAKER SAFETY CLIPS	-

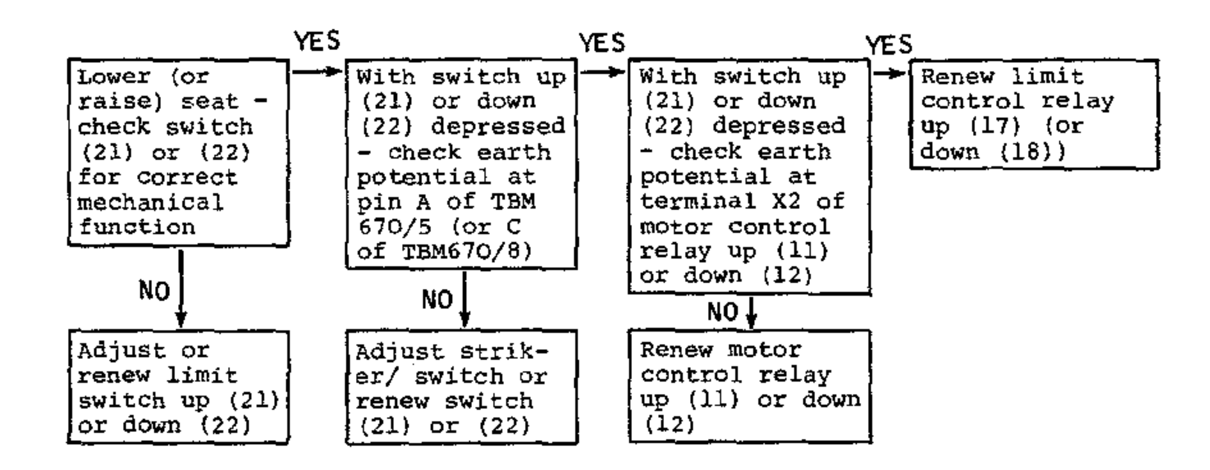


CMB 25 11 31 1 MAMO

Chart 111

UP/DOWN LIMIT SWITCHES FAIL TO SWITCH OFF UP/DOWN MOTOR (14)

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
POWER SUPPLIES: 200V,3Ph;28V DC	-
MULTIMETER	-
CIRCUIT BREAKER	
SAFETY CLIPS	-



CMB 25 11 31 1 NAMO

Chart 112

SEAT BACK FAILS TO ADJUST IN ANGLE OF TILT

Lift seat back tilt mechanism release lever and check if lever movement is obstructed.
- YES → Check lever/cable for damage; rectify/renew as necessary - retest.
- NO ↓

Disconnect cable from adjuster strut and move seat back to check if movment is unobstructed.
- YES → Ensure that adequate packing is fitted under cable seating, to ensure spigot withdrawal from strut lock nut when handle is fully lifted. Reconnect cable and retest.
- NO ↓

Disconnect upper end of seat back adjuster strut from seat back support linkage and check if movement of back is obstructed.
- YES → Check all bearings in seat back linkage for seizure. Replace as necessary, reconnect linkage and retest.

CMB 25 11 31 1 PAMO

Chart 113

ITEM NO. AND DESCRIPTION	ACCESS PANEL	PANEL/ ZONE	EQUIP. IDENT.	POSITION	MANUAL REF. MAINT. TOPIC	WIRING DIAGRAM
(1) Circuit breaker 200V 3Ph	-	14-216	M252	B3, 3CM Racking	24-50-00 R/1	25-11-31
(2) Circuit breaker 28V dc	-	15-216	M255	C6, 3CM Racking	24-50-00 R/1	
(3) Power "ON" switch	-	30-214-2	M503	Seat console	25-11-31	
(4) Master switch (FWD/AFT)	-	30-214-2	M515	Seat console	25-11-31	
(5) Control switch (FWD/AFT)	-	30-214-2	M516	Seat console	25-11-31	
(6) Master switch (UP/ DOWN)	-	30-214-2	M581	Seat console	25-11-31	
(7) Control switch (UP/ DOWN)	-	30-214-2	M580	Seat console	25-11-31	
(8) Master control relay	-	30-214-1	M540	Seat base panel	25-11-31	
MOTOR CONTROL						
(9) FWD relay	-	30-214-1	M541	Seat base panel	25-11-31	
(10) AFT relay	-	30-214-1	M542	Seat base panel	25-11-31	
(11) UP relay	-	30-214-1	M584	Seat base panel	25-11-31	
(12) DOWN relay	-	30-214-1	M585	Seat base panel	25-11-31	
SEAT TRAVEL MOTORS						
(13) FWD/AFT	-	30-214	M557	Seat base	25-11-31	
(14) UP/DOWN	-	30-214-3	M590	Seat base	25-11-31	
SEAT LIMIT CONTROL						
(15) FWD relay	-	30-214-1	M551	Seat base panel	25-11-31	
(16) AFT relay	-	30-214-1	M552	Seat base panel	25-11-31	
(17) UP relay	-	30-214-1	M582	Seat base panel	25-11-31	
(18) DOWN relay	-	30-214-1	M583	Seat base	25-11-31	

ITEM NO. AND DESCRIPTION	ACCESS PANEL	PANEL/ ZONE	EQUIP. IDENT.	POSITION	MANUAL REF. MAINT. TOPIC	MANUAL REF. WIRING DIAGRAM
				panel		
(19) Micro- (FWD)	-	30-214	M519	Seat trolley	25-11-31	
(20) Micro- switch (AFT)	-	30-214	M520	Seat trolley	25-11-31	
(21) Micro- switch (UP)	-	30-214-4	M588	Seat pedestal	25-11-31	
(22) Micro- switch (DOWN)	-	30-214-3	M589	Seat pedestal	25-11-31	
(23) Start control unit	-	18-216	M594	Seat panel	25-11-31	
(24) Blocking diodes	-	30-214-1	M665 M666 M667 M668	Seat base panel	25-11-31	
(25) Blocking diodes	-	30-214-1	M558 M559 M560 M561 M586 M587 M669	Seat base panel	25-11-31	
(26) Micro- switch (90 deg)	-	30-214-4	M522	Seat panel	25-11-31	
(27) Micro- switch (anti- collision)	-	30-214	M518	Seat trolley	25-11-31	

Component Identification
Table 101

THIRD CREW MEMBER'S SEAT - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

1. General

The third crew member's (3CM) seat is mounted on a secondary
R trolley on the RH side of the flight compartment. The
trolley is mounted on rails parallel to the aircraft centre
line; transverse rails, fitted to the top of the secondary
trolley, facilitate movement of the seat on the trolley.

To remove the seat assembly, the seat is first removed
from the secondary trolley and then the trolley is removed
R from the mounting rails in the flight compartment.

Included in this topic are instructions for the removal and
R installation of the forward/aft motor and gearbox assembly,
R the up/down motor and gearbox assembly and the small
R electrical components on the seat assembly.

2. Third Crew Member's Seat

A. Equipment and Materials

DESCRIPTION	PART NO.
Seat protective stand	E925009000
Torque spanner 0 - 220 lbf in (0 - 2.49 mdaN) range	-
Circuit breaker safety clips	-

B. Prepare to Remove Seat

R (1) Trip the following circuit breakers and fit safety
R clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

(2) Disconnect the electrical supply cable plug from the receptacle on the seat relay panel assembly. Stow the disconnected cable on the seat.

(3) Disconnect the electrical connector between the seat control console and the secondary trolley, at the relay panel assembly. Stow the disconnected cable on the seat.

(4) Move the co-pilot's seat to the fully forward position and the 3CM seat to the position in line with the centre of the knee-well in the 3CM panel.

C. Remove Seat (Ref. Fig. 401)

(1) Remove the bolts securing the seat stop at the inboard end of each transverse rail on the trolley; remove the stops.

(2) Remove the outboard seat base cover.

(3) Lift the transverse travel lock lever and secure it in the raised position. Remove the two nuts, axle pin, thrust washers and roller of the centre roller assembly on the seat to allow inboard movement of the seat on the trolley. Move the seat inboard.

(4) Remove the seat from the trolley and place it on the protective stand.

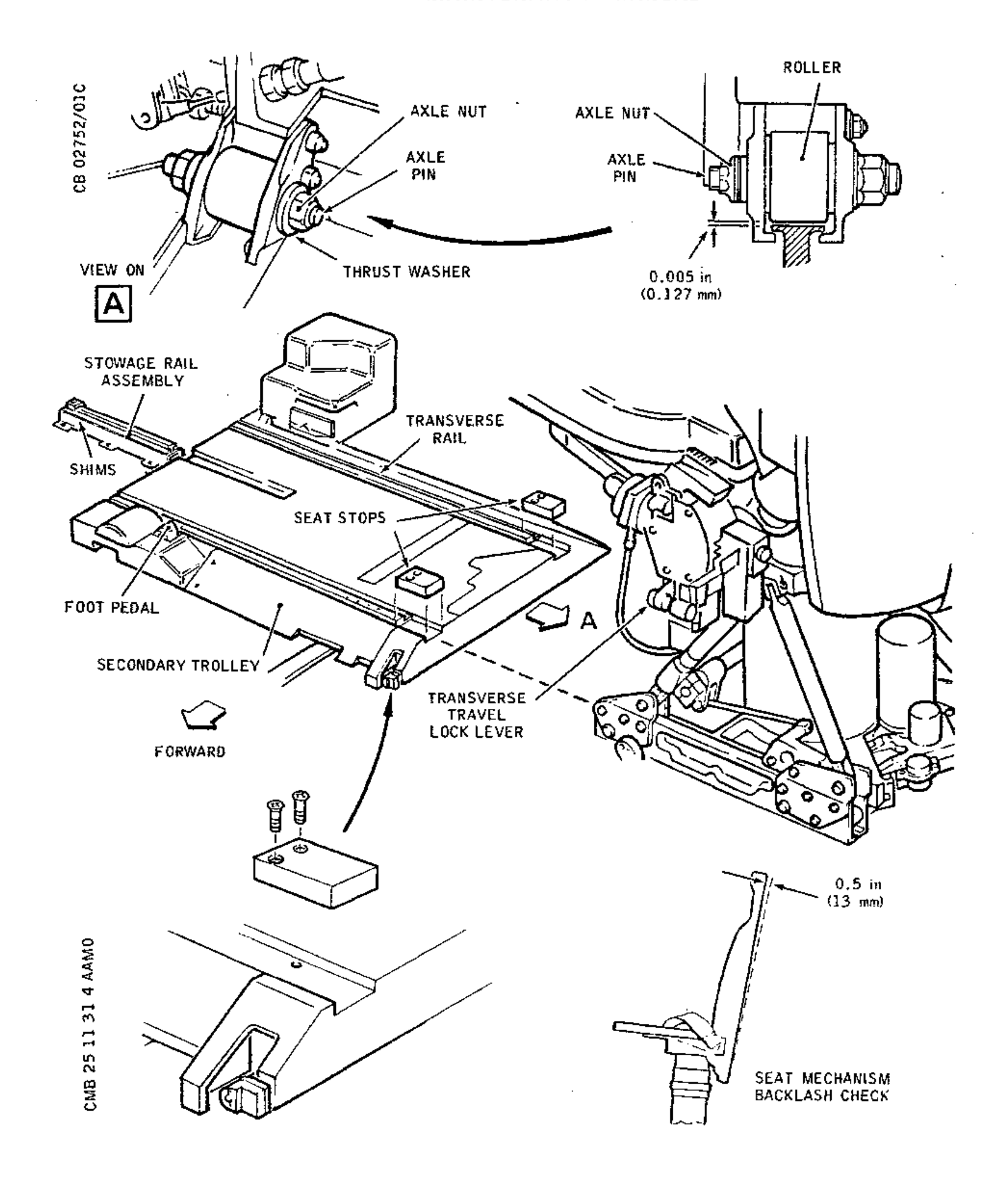
(5) Temporarily fit the seat stops to the trolley base.

(6) Temporarily refit the centre roller assembly to the seat.

(7) Temporarily refit the seat base cover.

D. Prepare to Install Seat

(1) Comply with the electrical safety precautions.



Third Crew Member's Seat - Installation
Figure 401

R

(2) Ensure that the co-pilot's seat is in the fully forward position.

(3) Ensure that the transverse travel lock lever is secured in the raised position.

(4) Temporarily remove the seat base cover and remove the stops fitted to the inboard end of each of the transverse rails on the trolley.

(5) Temporarily remove the stowage rail roller assembly which is located at the centre-line of the seat base assembly.

E. Install Seat (Ref. Fig. 401)

(1) Position the secondary trolley so that the centre-line between the seat rails is aligned with the stowage rail on the flight compartment floor.

(2) Adjust the quantity of shims under the stowage rail until the upper face of the stowage rail is level with the upper face of the transverse rails on the trolley. Tighten the bolts after the adjustment is completed and torque-load to between 40 and 45 lbf in (0.452 and 0.508 mdaN).

(3) Place the seat on the inboard end of the transverse rails of the trolley and slide the seat on to the rails.

(4) Fit the stops to the inboard end of the transverse rails.

Before SB 25-025 For A/C 003-008

(5) Adjust roller clearances:

(a) Assemble the stowage rail roller assembly to the seat base and check that the clearance between the roller and adjacent rail face is 0.005 in (0.125 mm), otherwise slacken the locknuts and rotate the eccentric spindle to obtain the required clearance. Tighten the locknuts after adjustment is completed and torque-load to between 200 and 215 lbf in (2.26 and 2.43 mdaN).

(b) Check that the seat moves freely along the track length available on the stowage rail and on the trolley. To overcome resistance to seat movement, caused by fouling of the locating

lips of the stowage rail roller side plate with the underside of the stowage rail flange, repeat operations (2) and (5) (a).

After SB 25-025 For A/C 001-007,

(6) Adjust roller clearances:

(a) Assemble the stowage rail roller assembly to the seat base and check that the clearance between the roller and the adjacent rail face is 0.005 in (0.125 mm); if necessary, slacken the locknuts and rotate the eccentric spindle to obtain the required clearance. Tighten the locknuts after the adjustment is completed and torque-load the forward locknut to between 200 and 215 lbf in (2.26 and 2.43 mdaN) and the aft locknut to between 60 and 70 lbf in (0.678 and 0.701 mdaN).

(b) Check that the seat moves freely along the track length available on the stowage rail and on the trolley. To overcome resistance to seat movement, caused by fouling of the locating lips of the stowage rail roller side plate with the underside of the stowage rail flange, repeat operations (2) and (6) (a).

(7) With the seat facing forward raise the seat fully; check that the total backlash of the seat mechanism measured at the top of the seat back, does not exceed 0.50 in (12.7 mm) (Ref. Fig. 401).

(8) Fit the seat base outboard cover and attach the control cable loom. Free the electrical connector cables and, after removing the protective covers from the plugs and receptacles, connect the seat connector plug and power supply plug to the respective receptacles on the trolley.

(9) Check the operation of the crashlock release, emergency crashlock/motor disconnect lever and transverse lock release levers. Adjust as necessary in accordance with instructions contained in 25-11-31, Adjustment/Test.

(10) Reset the seat circuit breakers (Ref. para.B).

(11) Make available electrical ground power (Ref. 24-41-00,

R Servicing).

(12) Functionally test the seat (Ref. 25-11-31, Adjustment/Test).

3. Secondary Trolley

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Setting gauge (outboard)	E925511000
Setting gauge (inboard)	E925512000
Torque spanner 0 - 220 lbf in (0 - 2.49 mdaN) range	-

B. Prepare to Remove Trolley

(1) Remove the 3CM seat as instructed in para.2.

(2) Unlock the bolts securing the front and rear stops to the trolley outboard rail. Remove the bolts and stops, and discard the tabwashers. Temporarily refit the stops to the rail.

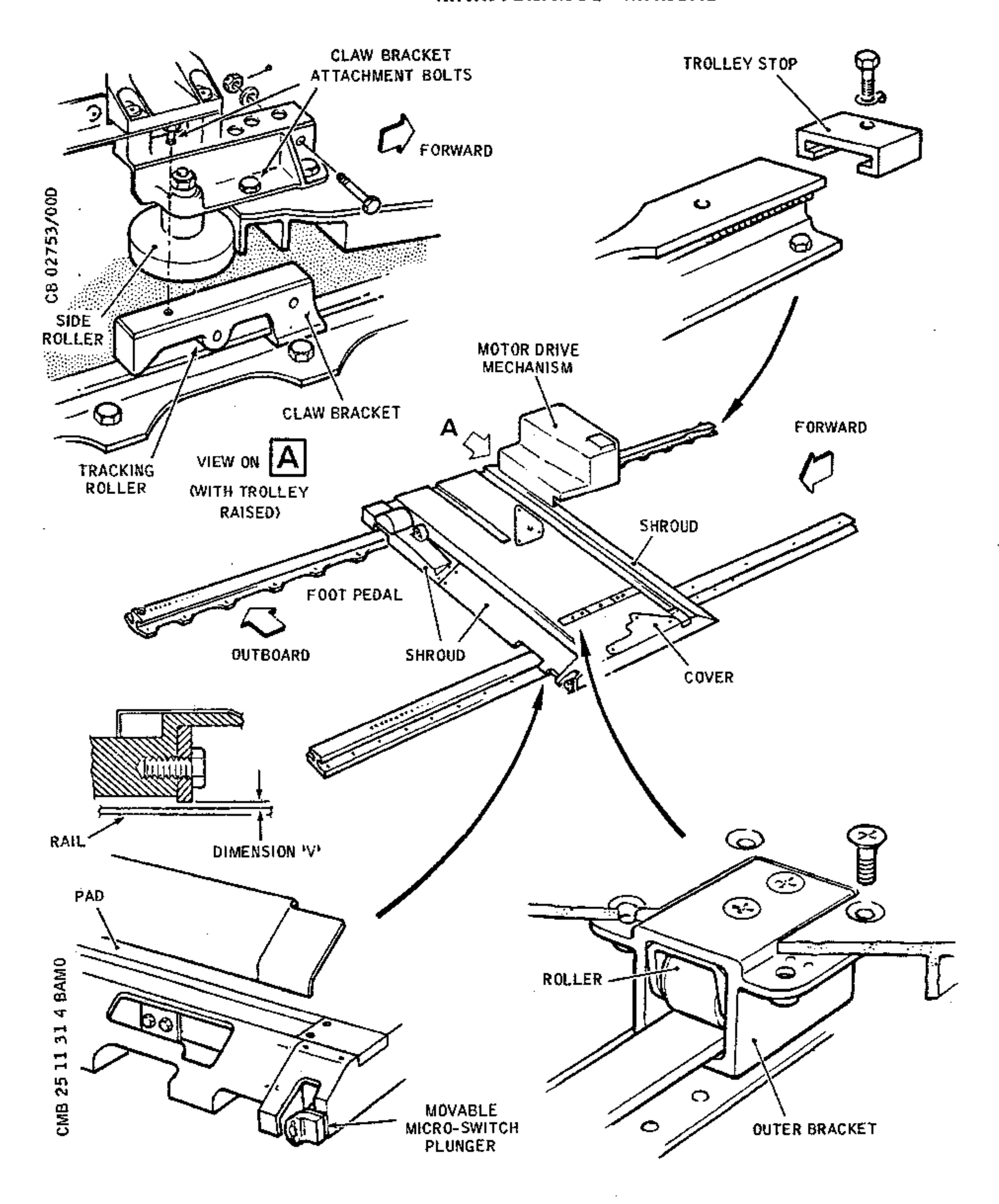
C. Remove Trolley (Ref. Fig. 402)

(1) At the locations shown, remove the shrouds and covers from the top surface, and remove the pad from the forward lateral member.

(2) Remove the four attachment bolts securing the forward inboard claw bracket assembly; remove the bracket assembly.

NOTE: Retain the packer and shims fitted between the inner and outer brackets.

(3) Operate the crashlock pin and motor drive disconnect flap and maintain in this position to disengage the motor gearbox, and to withdraw the trolley crashlock pins from the holes in the rails.



Secondary Trolley Installation
Figure 402

R

(4) Slide the trolley to the rear end of the guide rails and lift the trolley at the rear end to disengage the outboard claw and drive pinion and the inboard claw from the rails, through the rail cut-outs provided.

(5) Tilt the trolley from the rear and draw it forward until the outboard forward claw can be fed over the forward end of the inboard rail.

D. Prepare to Install Trolley (Ref. Fig.402 and 403)

(1) Remove the shrouds and covers on the top surface of the trolley.

(2) Adjust the roller clearances, on both sides of the trolley in turn, as follows (Ref. Fig. 403):

(a) Fit the relevant secondary trolley setting gauges between the forward and rear translation rollers and their associated claw brackets on the appropriate side of the trolley.

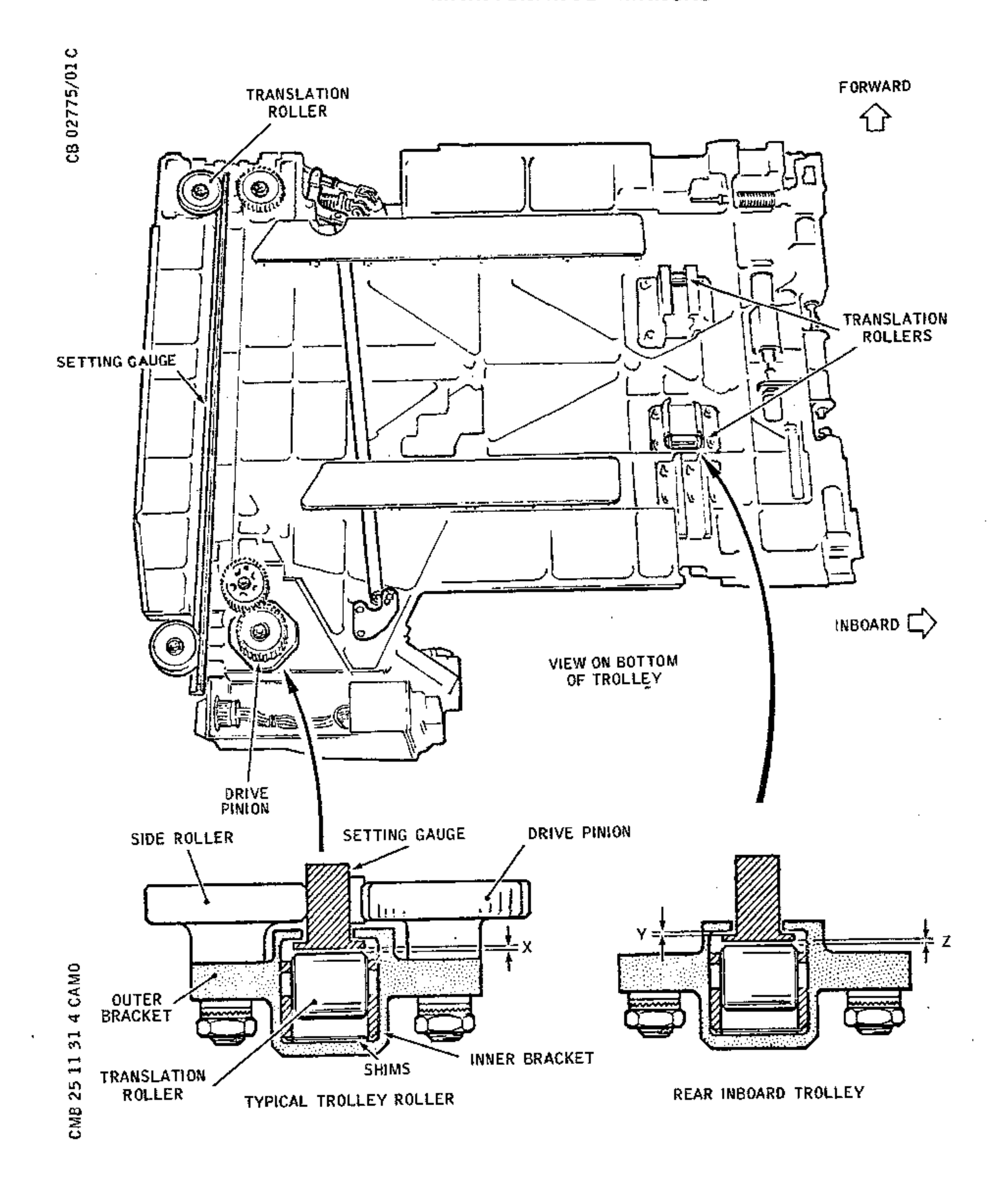
Before SB25-025 For A/C 003-008

(b) Insert a 0.003 in (0.075 mm) feeler gauge between the translation rollers and the rail face of the setting gauge (Dimension X). Adjust the quantity of shims between the inner and outer brackets until a light grip is felt on movement of the feeler gauge. Tighten the shim securing bolts on completion of each setting.

After SB 25-025 For A/C 001-007,

(c) Insert a 0.010 in (0.254 mm) feeler gauge between each of the two outboard and the forward inboard translation rollers and the rail face of the setting gauge (Dimension X). Adjust the quantity of shims between the inner and outer brackets until a light grip is felt on movement of the feeler gauge. Tighten the shim securing bolts on completion of each setting.

(d) Insert a 0.028 in (0.7112 mm) feeler gauge between the rear inboard translation roller and the rail face of the setting gauge (Dimension Y) and a 0.028 in (0.7112 mm) feeler gauge between the bottom face of the setting gauge flange and the claw bracket assembly (Dimension Z). Adjust the quantity of shims between the inner and outer



Secondary Trolley Roller Adjustments
Figure 403

R

bracket of the translation roller assembly until a light grip is felt on movement of the feeler gauges. Tighten the shim securing bolts on completion of each setting.

(e) Remove the setting gauges.

(3) Move the co-pilot's seat to the fully forward position.

(4) Remove the stops from the outboard rail.

E. Install Trolley

(1) Remove the forward inboard claw bracket as instructed in para.C (2).

(2) Ensure that the crashlock pin and motor disconnect flap is secured in the fully depressed position.

(3) Place the trolley at the forward end of the rails.

(4) Slightly raise the rear edge of the trolley then pull it rearwards and locate the front outboard claw bracket on the rail.

(5) Carefully draw the trolley aft, taking care to ensure that the engaged claw does not damage the rail flange. When the trolley rear claws are aligned with the cut-outs in the rails, lower the rear end to engage the drive pinion with the rack on the outboard rail and the rear outboard and inboard claws with their respective rails. Move the trolley forward to clear the rail cut-outs.

(6) Slide the forward inboard claw bracket onto the front end of the inboard rail and feed it under the trolley. Refit the claw bracket to the trolley using shims and packing removed in operation (1). Secure the bracket with the four bolts and torque-load the bolts to between 40 and 45 lbf in (0.45 and 0.50 mdaN).

(7) Apply pressure to the trolley in an outboard direction and retain it so that the gearwheels are fully meshed with the gear teeth on the rack; check that the front and rear side roller clearance, between the rollers and the web face of the rail, is between 0.003 in and 0.005 in (0.075 and 0.127 mm), otherwise loosen the locknut and rotate the eccentric spindle so that the clearance is correct. Tighten the lock-

nut and torque-load it to between 80 and 90 lbf in (0.904 and 1.017 mdaN). Wirelock the locknut to the bracket.

(8) Fit the stops to both ends of the outboard rail, and torque load the bolts to between 27 and 32 lbf in (0.305 and 0.362 mdaN) and lock them with new tabwashers.

(9) Check that the trolley moves freely along the whole length of the rails. If necessary, adjust the shimming at the translation roller positions as described in para. D(2), using the aircraft floor rails instead of the the setting gauge, to limit the roller/rail clearance to that which allows free fore/aft travel along the full length of the rails, with a minimum of vertical back-lash. Check the operation of the crashlock pin, ensuring that it enters the holes in the rail satisfactorily.

NOTE: If necessary, lateral adjustment of the pin with respect to the holes in the rail can be effected by adjusting the two forward translation rollers as a pair. Care must be taken to ensure that the clearance set in operation (8) in maintained.

(10) Refit the pad to the forward lateral member and check that the dimension 'V' shown in (Ref. Fig. 402) is within 0.003 in to 0.015 in (0.0762 to 0.381mm) at the
R tightest position, along the full length of the rails. Torque-tighten the pad securing bolts to between 30 and 40 lbf in (0.339 and 0.452 mdaN).

(11) Refit the shrouds and covers to the top surface of the trolley at the positions shown (Ref. Fig. 402).

(12) Install the seat as detailed in para.2D and 2E.

(13) Functionally test the seat and trolley assembly (Ref. 25-11-31, Adjustment/Test).

4. Forward/Aft Motor and Gearbox Assembly

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque spanner, 30-40 lbf in (0.339 and 0.452 mdaN) range	-
Torque screwdriver, 0-15 lbf in (0-0.170 mdaN) range	-

B. Remove Forward/Aft Motor and Gearbox

R (1) Trip the following circuit breakers and fit safety
R clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

(2) Remove the screws securing the cover at the rear of
R the trolley; remove the cover.

R (3) Disconnect the motor flying lead from the
R module block (Ref. Wiring Diagram Manual, 25-11-31) on the seat relay panel assembly. Detach the leads from the loom, removing the loom securing clips as necessary.

(4) Depress the clutch actuator and release the clutch cable from its detent in the actuator.

R (5) Remove the screws and washers holding the clutch actuator to the top of the motor gearbox and remove the actuator.

R (6) Remove the bolts at the horizontal mounting
R bracket and bolts and nuts at the vertical mounting bracket, which secure the gearbox to the outboard rear of the trolley. Remove the shims between the gearbox and the vertical mounting bracket;

note the quantity of shims and retain them for subsequent installation.

(7) Carefully withdraw motor and gearbox assembly complete.

NOTE: If removing the motor and gearbox assembly, remove the split pin and nut securing the clutch assembly to the drive shaft. Withdraw the drive shaft and retain with the clutch. Also remove the two bolts securing the top cap of the idler pinion bearing housing and split the housing. Remove the split pin and nut securing the idler pinion to the shaft and remove the pinion. Withdraw the shaft and bearings from the split housing. Retain the nuts, shafts, idler pinion washers, bearings and clutch for subsequent installation on the replacement unit. Refit the bearing housing top cap and secure with the two bolts.

C. Install Forward/Aft Motor Gearbox

R (1) Comply with the electrical safety precautions.

(2) If a new motor and gearbox is to be fitted, fit the drive shaft and clutch and also the idler pinion, shaft and bearings, removed from the previous gearbox, to the replacement gearbox and secure with the castellated nuts and washers. Torque-load the nut to between 27 and 32 lbf in (0.305 and 0.361 mdaN) and lock with a split pin.

(3) Position the motor and gearbox on its mounting brackets and fit shims, as noted during removal, between the gearbox and the vertical mounting bracket.

(4) Fit the three bolts at the horizontal mounting bracket and the four bolts and nuts at the vertical mounting bracket to secure the gearbox. Torque-load each bolt to between 30 and 40 lbf in (0.339 and 0.452 mdaN).

(5) Refit the clutch actuator to the top of the gearbox and secure it with three bolts and washers. Torque-load each bolt to between 30 and 40 lbf in (0.339 and 0.452 mdaN).

(6) Connect the clutch operating cable by depressing the clutch actuator and inserting the end fitting of the

cable into the detent in the actuator. Adjust the cable (Ref. 25-11-31, Adjustment/Test).

R (7) Route the motor flying lead in the loom to the relay panel assembly. Refit the loom securing clips. Connect the motor lead ends to the module block (Ref. Wiring Diagram Manual, 25-11-31) on the relay panel assembly.

R (8) Fit the cover to the rear of the trolley and torque-load the attachment screws to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

R (9) Reset the seat circuit breakers (Ref. para.B).

(10) Functionally test the seat and trolley assembly (Ref. 25-11-31, Adjustment/Test).

5. Up/Down Motor and Gearbox Assembly

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque spanner 30-40 lbf in (0.339 and 0.452 mdaN) range	-
Torque screwdriver 0-15 lbf in (0-0.170 mdaN) range	-

B. Remove Up/Down Motor and Gearbox

R (1) Trip the following circuit breakers and fit safety clips:

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

R (2) Remove the screws and undo the quick release fasteners securing the seat base covers; remove the covers. Remove the screws securing the cover at the rear of the trolley; remove the cover. Disconnect the motor flying lead from the module block (Ref. Wiring Diagram Manual 25-11-31). Withdraw the motor cable from the main loom, removing the loom securing clips as necessary.

(3) Slacken the gearbox to screwjack drive chain by loosening the locknuts and adjusting the screws of the chain tensioner on the seat base.

(4) Remove the bolts at the horizontal mounting bracket and bolts and nuts at the vertical mounting bracket, which secure the gearbox to the seat base. Remove the spacing block at the horizontal bracket position and, carefully disengaging the gearbox sprocket from the drive chain; lift off the motor and gearbox complete.

NOTE: If a new motor and gearbox is to be fitted, remove the sprocket from the output shaft of the gearbox by unlocking and removing the securing nut and extracting the sprocket from the splined drive shaft. Withdraw the shaft assembly from the upper end and retain with the sprocket, and spacer situated between the sprocket and gearbox, for subsequent installation of the new motor and gearbox assembly.

C. Install Up/Down Motor and Gearbox

R (1) Comply with the electrical safety precautions.

(2) If a new motor and gearbox is to be fitted, fit the spacer, drive shaft and the drive sprocket, which were removed from the previous gearbox, to the replacement and secure with a castellated nut and washer. Torque-load the nut to between 27 and 32 lbf in (0.305 and 0.361 mdaN) and lock with a split pin.

(3) Position the gearbox on the mounting brackets, with the spacing block interposed at the horizontal bracket position. Engage the sprocket with the drive chain, ensuring that engagement of the chain and screw jack sprocket is maintained.

(4) Fit the three bolts at the horizontal mounting bracket and the four bolts and nuts at the vertical mounting bracket to secure the gearbox. Torque-load

each bolt to between 30 and 40 lbf in (0.339 and 0.452 mdaN).

(5) Adjust the two set screws of the chain tensioner to tension the drive chain until a radial lift of 0.25 in (6 mm) is obtained between the sprocket centres. After adjustment is completed, screw both adjusting screws finger tight to abut the lever of the tensioner, then tighten the locknuts.

(6) Route the motor flying lead in the loom to the relay panel assembly and refit the loom securing clips. Connect the motor flying lead to the module block (Ref. Wiring Diagram Manual 25-11-31).

(7) Fit the covers to the seat base, secure with quick-release fasteners and attachment bolts; torque-load the attachment bolts to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(8) Reset the seat circuit breakers (Ref. para.B).

(9) Functionally test the seat (Ref. 25-11-31, Adjustment/Test).

6. Forward/Aft (M557) and Up/Down (M590) Motors (Ref. Fig. 404)

NOTE: The procedure for the two motors is identical.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque screwdriver 0-15 lbf in (0-0.169 mdaN) range	-
Crimping tool	-
Tool, contact, insertion/extraction (8572-22) R	-
R Contacts (P095-05)	-
Jointing compound (Celloseal QH) (Ref. 20-30-00, No.370)	-

DESCRIPTION	PART NO.
Cleaning solvent, trichlorethylene (Ref. 20-30-00, No.469)	-
Cleaning solvent, trichloroethane (Ref. 20-30-00, No.462)	-
Small bristle brush	-
Gearbox input drive blank	-
'Kimwipe' tissues	-

B. Prepare to Remove Motor

(1) Trip the following circuit breakers and fit safety clips.

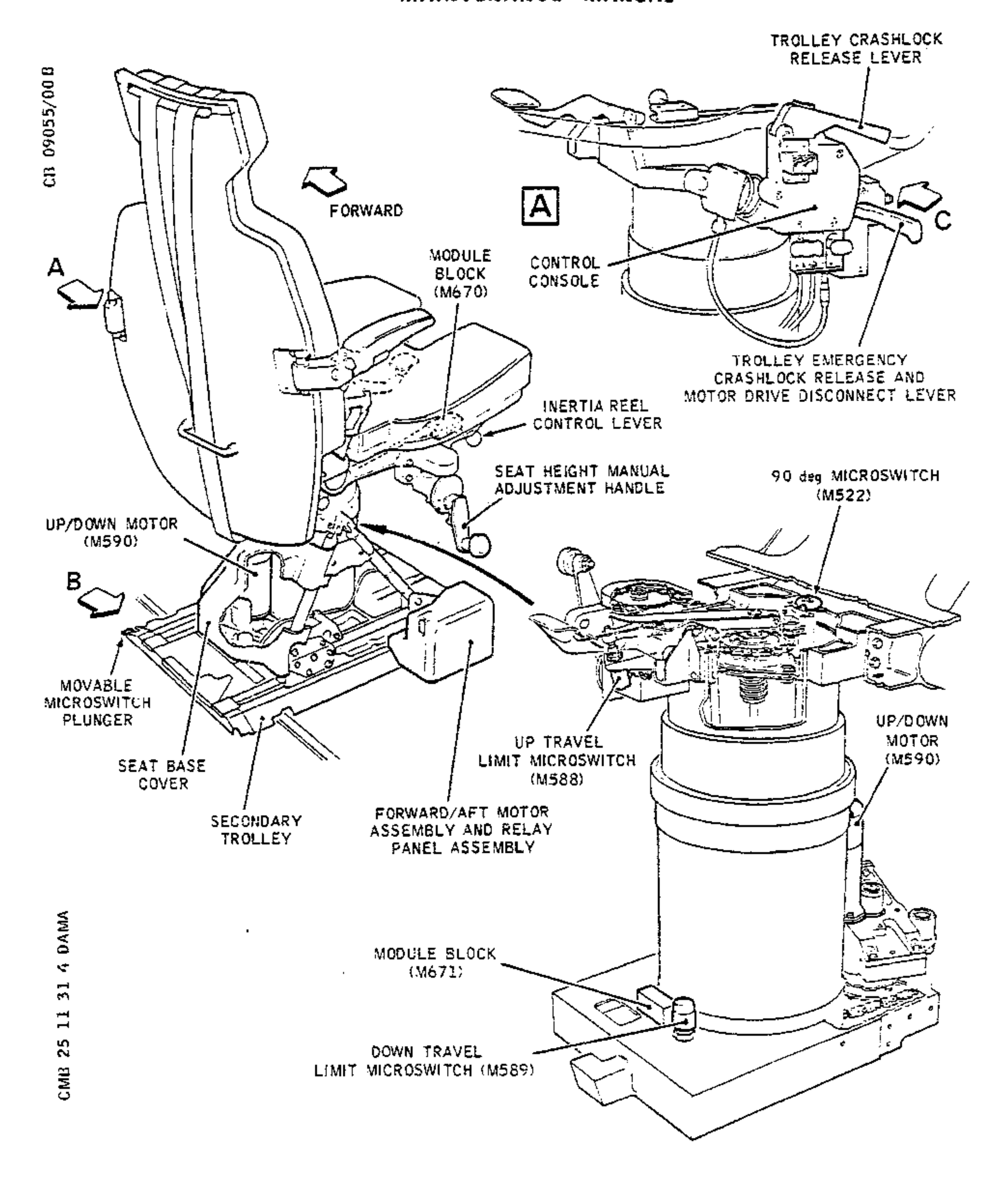
SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

(2) Position the seat on the trolley and rails, to allow maximum working space at the seat base motors, by the use of the transverse travel lock lever, the emergency crashlock release and motor drive disconnect lever and the seat height manual adjustment handle.

(3) Remove the screws securing the cover at the rear of the trolley; remove the cover.

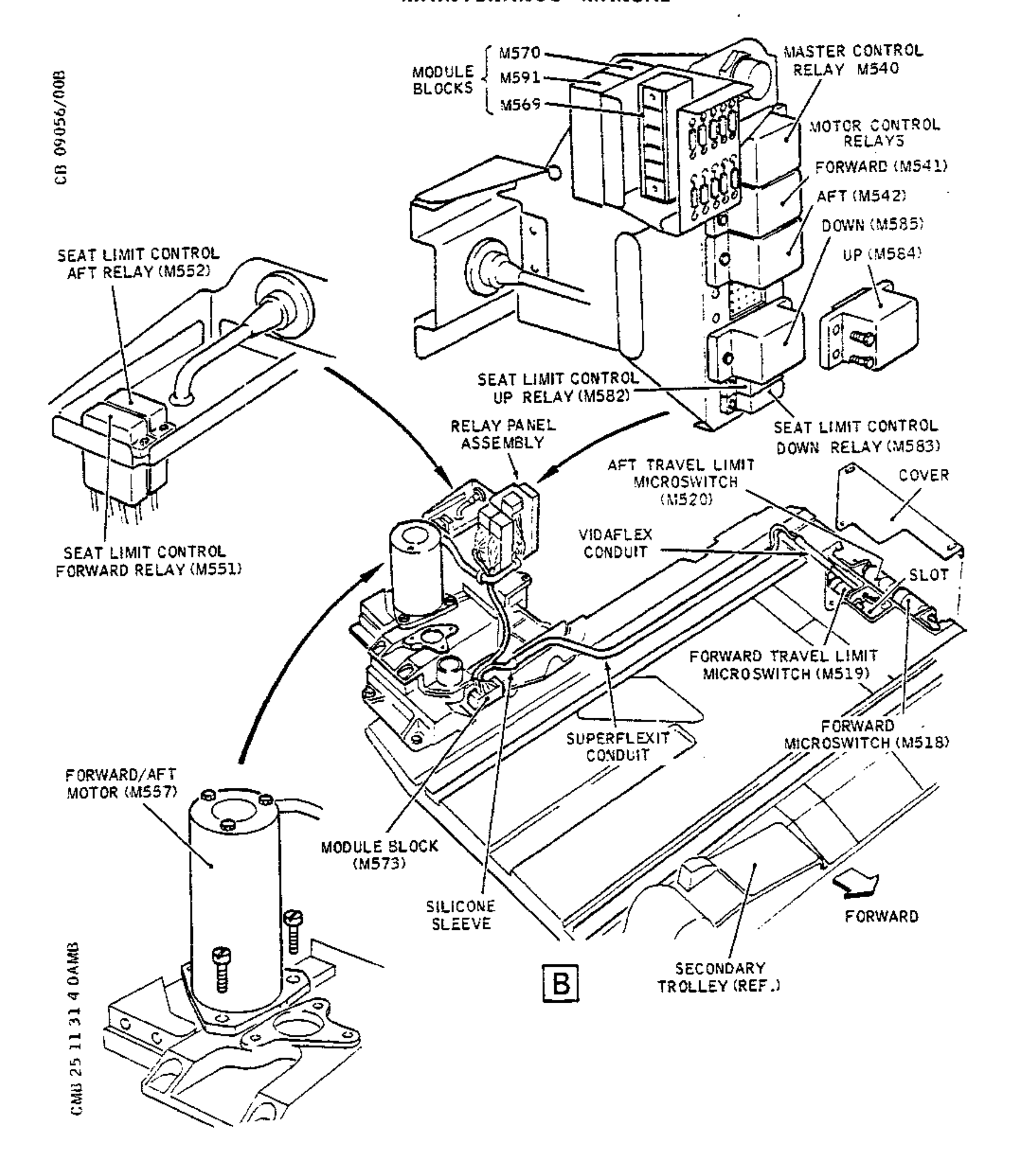
NOTE: Operation (4) is only applicable to the up/down motor.

(4) Remove the securing screws and slacken the quick-release fasteners from the seat base covers; remove the covers.



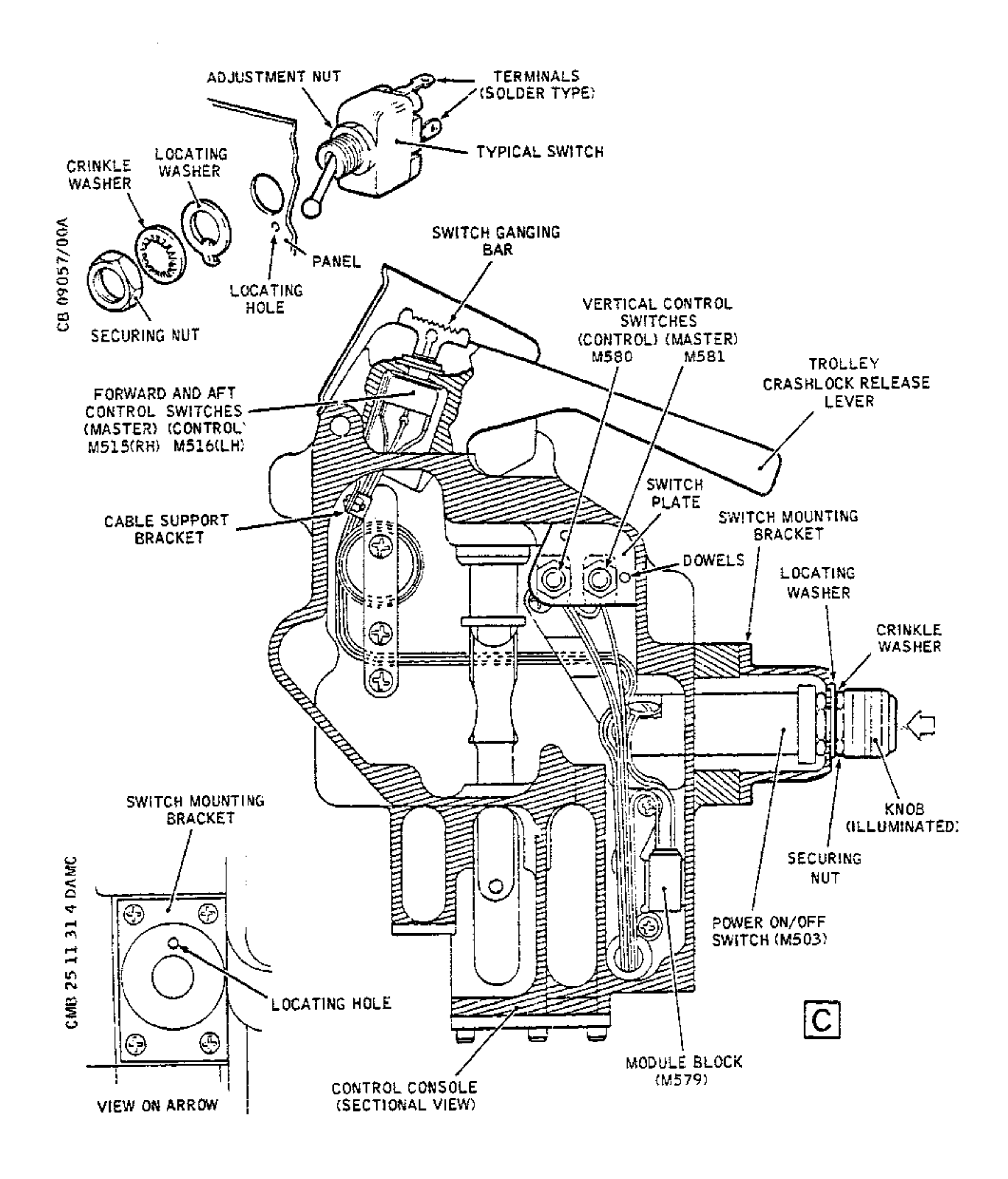
Third Crew Members Seat - Electrical Installation (Sheet 1 of 3)
Figure 404

R



Third Crew Members Seat - Electrical
Installation (Sheet 2 of 3)
Figure 404

R



Third Crew Members Seat - Electrical Installation (Sheet 3 of 3)
Figure 404

C. Remove Motor (Ref. Fig. 404)

(1) Disconnect the applicable motor flying lead from the module block on the relay panel assembly (Ref. Wiring Diagram Manual 25-11-31).

NOTE: Use the contact extraction tool, (white end) for this purpose.

(2) Remove the motor flying lead from the loom, loosening or removing securing clips as necessary.

(3) Remove the screws securing the motor to the gearbox (Ref. Detail B); remove the motor and blank-off the gearbox input drive.

D. Prepare to Replace Motor

(1) Check the Part No. and examine the replacement motor for cleanliness and freedom from damage.

(2) Clean the motor mounting flange, using a 'Kimwipe' tissue moistened with cleaning solvent (Ref. 20-30-00, No.462). Wipe dry, using a clean 'Kimwipe' tissue.

CAUTION: WHEN USING TRICHLORETHYLENE, AVOID EXCESS CONTACT WITH PAINTED COMPONENTS, RUBBER AND NON-METALLIC MATERIALS.

(3) Clean the motor mounting area of the gearbox:

(a) Remove all traces of jointing compound, using a 'Kimwipe' tissue moistened with cleaning solvent (Ref. 20-30-00, No.469).

(b) Wipe dry, using a clean 'Kimwipe' tissue.

NOTE: Ensure that foreign matter is prevented from entering the gearbox input drive.

E. Install Motor (Ref. Fig. 404)

(1) Comply with the electrical safety precautions.

(2) Refit the motor to the gearbox:

(a) Brush an even coating of jointing compound on the mating surfaces of the motor and gearbox, sufficient to ensure a spew at the edges of the joint after assembly.

(b) Remove the blank from the gearbox input drive and examine the drive to ensure that no foreign matter is present.

(c) Wet assemble the motor and gearbox, avoiding excessive movement at the joint faces during assembly. Engage the motor drive pinion with the gearbox input drive.

(d) Secure the motor to the gearbox using the three securing screws and washers.

(e) Torque-tighten each screw to 14 lbf in (0.158 mdaN).

(f) Remove surplus jointing compound from the joint using a clean 'Kimwipe' tissue.

(3) Route the motor flying lead in the loom, refit and tighten the loom securing clips.

(4) Prepare the flying lead ends in accordance with the Wiring Diagram Manual, 20-42-18.

(5) Connect the flying lead contacts to the module block, ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

R NOTE: Use the contact insertion tool (green end) for this purpose.

F. Test

(1) Remove all tools and equipment from the vicinity of the seat. Examine the seat base area, the trolley and the seat rails; remove all foreign matter.

(2) Remove the safety clips and close the seat circuit breakers (Ref. para.B).

(3) Carry out a Functional Test - Power Controls (Ref. 25-11-31, Adjustment/Test).

G. Conclusion

NOTE: Operation (1) is only applicable to the up/down motor.

(1) Refit the seat base covers and secure with the screws and washers also the quick-release fasteners.

Torque-tighten the screws to between 10 and 12 lbf in (0.113 to 0.135 mdaN).

(2) Refit the cover at the rear of the trolley using the attachment screws and washers. Torque-tighten each screw to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

7. Relay (Ref. Fig. 404)

NOTE: The removal and installation procedures for the master control (M540), forward control (M541), aft control (M542), up control (M584) and down control (M585) relays are identical (Ref. Detail B).

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-

B. Prepare to Remove Relay

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

(2) Remove the screws securing the cover at the rear of the trolley; remove the cover.

C. Remove Relay

(1) Locate the appropriate relay on the relay panel assembly at the rear of the trolley (Ref. Detail B).

(2) Remove the nuts securing the relay.

(3) Unplug the relay from the relay socket base; remove the relay.

D. Prepare to Replace Relay

(1) Check the Part No. and examine the replacement relay for cleanliness and freedom from damage.

(2) Ensure that the silicone gasket is in place on the relay.

E. Install Relay

(1) Comply with the electrical safety precautions.

(2) Ensure that the mating surfaces are clean and undamaged, and plug the relay into the relay socket base (Ref. Detail B).

(3) Fit a washer and nut on each of the three studs and torque-tighten each nut to 4 lbf in (0.045 mdaN).

F. Test

(1) Remove the safety clips and close the seat circuit breakers (Ref. para.B).

(2) Carry out a Functional Test - Power Control (Ref. 25-11-31, Adjustment/Test).

G. Conclusion

(1) Check that the area is clean and refit the cover at the rear of the trolley using the attachment screws and washers. Torque-tighten each screw to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(2) Remove all tools and equipment from the aircraft.

8. <u>Relay</u> (Ref. Fig. 404)

<u>NOTE</u>: The removal and installation procedures for the seat limit control forward (M551), the seat limit control aft (M552), the seat limit control up (M582) and the seat limit control down (M583) relays are identical (Ref. Detail B).

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-

B. Prepare to Remove Relay

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

(2) Remove the screws securing the cover at the rear of the trolley; remove the cover.

C. Remove Relay

(1) Locate the appropriate relay on the relay panel assembly at the rear of the trolley (Ref. Detail B).

(2) Remove the screws securing the relay.

(3) Unplug the relay from the relay socket base; remove the relay.

D. Prepare to Replace Relay

(1) Check the Part No. and examine the replacement relay for cleanliness and freedom from damage.

R (2) Ensure that the silicone gasket is in place on the relay.

E. Install Relay

(1) Comply with the electrical safety precautions.

(2) Ensure that the mating surfaces are clean and undamaged, and plug the relay into the relay socket

R base (Ref. Detail B).

R (3) Fit the washers and screws and tighten each screw to
R a nominal torque.

R F. Test

R (1) Remove the safety clips and close the seat circuit
R breakers (Ref. para.B).

R (2) Carry out a Functional Test - Power Controls (Ref.
R 25-11-31, Adjustment/Test).

R G. Conclusion

R (1) Check that the area is clean and refit the cover at
R the rear of the trolley using the attachment screws
R and washers. Torque-tighten each screw to between
R 10 and 12 lbf in (0.113 and 0.135 mdaN).

R (2) Remove all tools and equipment from the aircraft.

R 9. Relay Socket Base (Ref. Fig. 404)

R NOTE: The relay socket bases used on the 3CM seat circuits
R have either two or three point fixings.

R A. Equipment and Materials

R	DESCRIPTION	PART NO.
R	Circuit breaker safety clips	-
R R	Tool, contact, insertion and extraction (NAS 1664-16)	-
R R	Contacts (BAS 7419)	-

R B. Prepare to Remove Relay Socket Base

R (1) Trip the following circuit breakers and fit safety
R clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

(2) Remove the screws securing the cover at the rear of the trolley; remove the cover.

C. Remove Relay Socket Base

(1) Remove the appropriate relay (Ref. para.8 or 9 as applicable).

(2) Disconnect the wiring from the relay socket base.

NOTE: Use the contact extraction tool (white end) for this operation.

(3) Remove the nuts securing the relay socket base to the panel; remove the relay socket base.

D. Prepare to Replace Relay Socket Base

(1) Check the Part No. and examine the replacement relay socket base for cleanliness and freedom from damage.

(2) Ensure that the silicone rubber rear grommet is securely bonded to the body.

E. Install Relay Socket Base

(1) Comply with the electrical safety precautions.

(2) Position the relay socket base on the relay panel
R assembly and secure it with the washers and nuts. Torque-tighten as follows:

(a) For bases with 3 point fixings, torque-tighten each nut to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(b) For bases with 2 point fixings, torque-tighten each nut to 4 lbf in (.045 mdaN).

(3) Connect the wiring to the relay socket base, ensuring

that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

NOTE: Use the contact insertion tool (blue end) for this operation.

(4) Ensure that the relay socket base rear grommet is undamaged and seals over each wire.

(5) Check that the area is clean and refit the cover at the rear of the trolley using the attachment screws and washers. Torque-tighten each screw to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(6) Refit the appropriate relay (Ref. para.8 or 9 as applicable).

F. Test

(1) Remove the safety clips and close the seat circuit breakers (Ref. para.B).

(2) Carry out a Functional Test - Power Controls (Ref. 25-11-31, Adjustment/Test).

G. Conclusion

(1) Remove all tools and equipment from the aircraft.

R 10. Up Travel Limit Microswitch (M588) (Ref. Fig. 404)

R A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Thermopistol P35L	-
Crimping tool	-
Tool, contact, insertion and extraction (8572-22)	-
Contacts (P095-05)	-
Stainless steel wire 0.28 in (0.7 mm) dia.	-

DESCRIPTION	PART NO.
Superflexit conduit (BAS 7860-06)	-
RTV 738 (Ref.20-30-00, No. 383)	-
Shrink sleeve (BAS 7437, M0007)	-
Cleaning fluid (Ref.20-30-00, No. 473)	BAC M302
Loctite 'C' (Ref.20-30-00, No.111)	-
Locquic 'N' (Ref.20-30-00, No.120)	-
'Kimwipe' tissues	-

B. Prepare to Remove Microswitch.

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

(2) Remove the screws and undo the quick-release fasteners securing the seat base covers. Remove the covers.

(3) Locate the module block M670 on sheet 1 (Ref. Fig. 404). Remove the torq-set screws securing the module block guard. Remove the guard.

C. Remove Microswitch.

(1) Locate the up travel limit microswitch on sheet 1 (Ref. Fig. 404).

NOTE: The electrical cables from the microswitch are contained in a superflexit conduit which is

routed from the microswitch underneath the seat pan and via a P-clip to the module block (M670).

(2) Disconnect the microswitch electrical cables from the module block (Ref. Wiring Diagram Manual, 25-11-32).

NOTE: Use the contact extraction tool for this purpose.

(3) Remove the bolt from the P-clip located at the rear of the module block and release the microswitch conduit from the clip.

(4) Remove the mounting nut from the microswitch; remove the microswitch from the bracket, together with the wiring.

D. Prepare to Replace Microswitch.

(1) Check the Part No. and examine the replacement micro-switch for cleanliness and freedom from damage.

(2) Cut off any unwanted electrical cables close to the microswitch (Ref. Wiring Diagram Manual, 25-11-32).

(3) Soft pot the cut microswitch electrical cables using RTV 738 (Ref. Wiring Diagram Manual, 20-41-08).

(4) Prepare the required length of superflexit conduit and place over the microswitch electrical cables.

(5) Place a 1.5 in (38.1 mm) long, shrink sleeve over the other end of the conduit. Heat shrink the sleeve in position (Ref. Wiring Diagram Manual, 20-41-14).

(6) Crimp the contacts to the microswitch cable ends (Ref. Wiring Diagram Manual, 20-42-18).

E. Install Microswitch.

(1) Comply with the electrical safety precautions.

(2) Position the microswitch in the bracket; fit the washer and mounting nut using Loctite 'C' and Locquic 'N' on the threads. Tighten the nut to a nominal torque and wire-lock.

(3) Route the microswitch flexible conduit to the module block via the P-clip. Fit the P-clip bolt and

torque-tighten to between 35 and 44 lbf in (0.40 and 0.50 mdaN).

(4) Connect the electrical cables to the module block, ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram (Ref. Wiring Diagram Manual, 25-11-32).

NOTE: Use the contact insertion tool for this purpose.

F. Test.

(1) Remove all tools and equipment from the vicinity of the seat.

(2) Ensure that the seat base area, including the trolley platform and seat rails, is free from any foreign matter.

(3) Check that the microswitch operating mechanism is correctly adjusted (Ref. 25-11-31, Adjustment/Test).

(4) Refit the module block guard and secure it with the two torq-set screws and washers. Torque-tighten each screw to between 23 and 27 lbf in. (0.26 and 0.30 mdaN).

(5) Remove the safety clips and close the seat circuit breakers (Ref. para.B).

(6) Carry out a Functional Test - Power Controls (Ref. 25-11-31, Adjustment/Test).

G. Conclusion.

(1) Refit and secure the seat base covers with the quick-release fasteners and the washers and screws. Torque-tighten each screw to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(2) Remove all tools and equipment from the aircraft.

11. Down Travel Limit Microswitch (M589) (Ref. Fig. 404)

A. Equipment and Materials.

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Thermopistol P35L	-
Crimping tool	-
Tool, contact, insertion and extraction (8572-22)	-
Contacts, (P095-05)	-
Stainless steel wire 0.28 in (0.7 mm) dia.	-
Superflexit Conduit (BAS7860-06)	-
Sealant, RTV 738 (Ref. 20-30-00, No.383)	-
Shrink sleeve (BAS7437)	-
Cleaning Fluid (20-30-00, Ref 473)	BAC M302
Loctite 'C' (Ref.20-30-00, No.111)	-
Locquic 'N' (Ref.20-30-00, No.120)	-
'Kimwipe' tissues	-

B. Prepare to Remove Microswitch.

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

(2) Remove the screws and undo the quick-release fasteners

Printed in England

R securing the seat base covers. Remove the covers.

R (3) Remove the seat from the trolley (Ref. para. 2).

R C. Remove Microswitch.

R (1) Locate the down travel limit microswitch (M589) and
R the module block (M671) on sheet 1 (Ref. Fig. 404).

R (2) Disconnect the electrical cables from the microswitch
R at the module block (Ref. Wiring Diagram Manual
R 25-11-32).

R NOTE: Use the contact extraction tool for this
R purpose.

R (3) Remove the mounting nut from the microswitch; remove
R the microswitch from the seat base, together with the
R wiring.

R D. Prepare to Replace Microswitch.

R (1) Check the Part No. and examine the replacement micro-
R switch for cleanliness and freedom from damage.

R (2) Cut off any unwanted electrical cables close to the
R microswitch (Ref. Wiring Diagram Manual, 25-11-32).

R (3) Soft pot the cut microswitch electrical cables using
R RTV 738 (Ref. Wiring Diagram Manual, 20-41-08).

R (4) Prepare the required length of superflexit conduit
R and place it over the microswitch electrical cables.

R (5) Place a 1.5 in (38.1 mm) long, shrink sleeve over
R the other end of the conduit. Heat shrink the
R sleeve in position (Ref. Wiring Diagram Manual,
R 20-41-14).

R (6) Crimp the contacts to the microswitch cable ends
R (Ref. Wiring Diagram Manual, 20-42-18).

R E. Install Microswitch.

R (1) Comply with the electrical safety precautions.

R (2) Position the microswitch in the seat base. Fit the
R washer and mounting nut using Loctite 'C' and Locquic
R 'N' on the threads. Tighten the nut to a nominal
R torque and wire-lock.

(3) Connect the electrical cables to the module block, ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram (Ref. Wiring Diagram Manual, 25-11-32).

NOTE: Use the contact insertion tool for this purpose.

(4) Check that the microswitch operating mechanism is correctly adjusted (Ref. 25-11-31, Adjustment/Test).

(5) Refit the seat on the trolley (Ref. para.2).

F. Test

(1) Remove all tools and equipment from the vicinity of the seat.

(2) Ensure that the seat base area, including the trolley platform and seat rails, is free from any foreign matter.

(3) Remove the safety clips and close the seat circuit breakers (Ref. para.B).

(4) Carry out a Functional Test - Power Controls (Ref. 25-11-31, Adjustment/Test).

G. Conclusion.

(1) Refit and secure the seat base covers with the quick-release fasteners and the washers and screws. Torque-tighten each screw to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(2) Remove all tools and equipment from the aircraft.

12. Microswitch (Ref. Fig. 404)

NOTE: The removal and installation procedures for the Forward (M518), the Forward Travel Limit (M519) and the Aft Travel Limit (M520) microswitches are identical.

A. Equipment and Materials.

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Crimping tool	-

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Tool, contact, insertion and extraction (8572-22)	-
Contacts (P095-05)	-
Stainless steel wire 0.28 in (0.7 mm) dia	-
Superflexit conduit (BAS7860-06)	-
Silicone sleeve	-
Sealant, RTV738 (Ref. 20-30-00, No.383)	-
Cleaning fluid (20-30-00, Ref. 473)	BAC M302
'Kimwipe' tissues	-

B. Prepare to Remove Microswitch.

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

(2) Remove the seat from the trolley (Ref.para.2).

(3) Remove the screws retaining the cover at the rear of the trolley. Remove the cover.

(4) Remove the bolts securing the cover on the inboard side of the trolley surface; remove the cover to reveal the microswitches (Ref. Detail B).

R C. Remove Microswitch.

R (1) Locate the appropriate microswitch and the module
R block (M573) (Ref. Detail B).

R (2) Disconnect the electrical cables from the microswitch
R at the module block (Ref. Wiring Diagram Manual,
R 25-11-32).

R <u>NOTE</u>: Use the contact extraction tool for this
R purpose.

R (3) Remove the mounting nut from the microswitch; remove
R the microswitch, complete with wiring, from the seat
R trolley.

R D. Prepare to Replace Microswitch.

R (1) Check the Part No. and examine the replacement micro-
R switch for cleanliness and freedom from damage.

R (2) Cut off any unwanted electrical cables close to the
R microswitch (Ref. Wiring Diagram Manual 25-11-31).

R (3) Soft pot the cut microswitch electrical cables using
R RTV 738 (Ref. Wiring Diagram Manual, 20-41-08).

R (4) Prepare the required length of silicone sleeve and
R place it over the microswitch electrical cables.

R <u>NOTE</u>: The sleeve must be of sufficient length to
R completely cover the wiring from the micro-
R switch to the entry at the superflexit conduit.

R E. Install Microswitch.

R (1) Comply with the electrical safety precautions.

R (2) Fit the microswitch in the mounting bracket and
R secure with the washer and the nut. Adjust the
R position of the microswitch so that a dimension
R of 0.5 in (12.7 mm) exists between the free end
R of the microswitch plunger and the face of the
R mounting bracket. Tighten the nut to a nominal
R torque and wire-lock.

R (3) Route the microswitch wiring through the slot (if
R applicable) and via the vidaflex and superflexit
R conduits to the module block (Ref. Detail B).

R (4) Seal the exit of the wiring at the superflexit

conduit with a 1 in (25.4 mm) silicone sleeve placed over the end of the conduit and the electrical cables.

NOTE: The following operation (5) is only applicable to microswitches M518 and M520.

(5) Clean the slot and the area of the electrical cable within the slot with cleaning fluid and dry thoroughly with a clean 'Kimwipe' tissue. Apply RTV 738 within the slot and around the electrical cable (Ref. Wiring Diagram Manual 20-41-08).

(6) Crimp the contacts to the microswitch cable ends (Ref. Wiring Diagram Manual, 20-42-18).

(7) Connect the electrical cables to the module block, ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram (Ref. Wiring Diagram Manual, 25-11-32).

NOTE: Use the contact insertion tool for this purpose.

(8) Check that the microswitch operating mechanism is correctly adjusted (Ref. 25-11-31, Adjustment/Test).

(9) Examine the trolley and seat rails for cleanliness and remove any foreign objects.

(10) Refit the microswitch cover at the inboard side of the trolley surface. Secure it with the three bolts and tighten each bolt to a nominal torque.

(11) Refit the cover at the rear of the trolley and secure it with the four torq-set screws. Torque-load each screw to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(12) Refit the seat on the trolley (Ref.para.2).

F. Test.

(1) Remove all tools and equipment from the vicinity of the seat.

(2) Remove the safety clips and close the seat circuit breakers (Ref. para.B).

(3) Carry out a Functional Test - Power Controls (Ref. 25-11-31, Adjustment/Test).

R G. Conclusion.

R (1) Remove all tools and equipment from the aircraft.

R 13. 90 Degree Microswitch (M522) (Ref. Fig. 404)

R A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Crimping tool	-
Tool, contact, insertion and extraction (8572-22)	-
Contacts (P095-05)	-
Superflexit conduit (BAS7860-06)	-
Sealant, RTV 738 (Ref.20-30-00, No.383)	-
Shrink sleeve (BAS7437, M0007)	-
Silicone sleeve	-
Thermopistol P35L	-
Cleaning fluid (Ref.20-30-00, No.473)	BAC M302
Loctite 'C' (Ref.20-30-00, No.111)	-
Locquic 'N' (Ref.20-30-00, No.120)	-
'Kimwipe' tissues	-
Stainless steel wire, 0.28 in (0.7mm) dia.	-

R B. Prepare to Remove Microswitch

R (1) Trip the following circuit breakers and fit safety
R clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

(2) Remove the screws and undo the quick-release fasteners securing the seat base covers. Remove the covers.

(3) Remove the seat pan cushion (held in position with Velcro tapes).

(4) Locate the module block M670 on sheet 1 (Ref. Fig. 404). Remove the torq-set screws securing the module block guard. Remove the guard.

(5) Remove the bolt securing the P-clip located at the rear of the module block and remove the 90 deg microswitch conduit from the clip.

(6) Locate the forward support brackets on the underside of the seat pan; remove the split pin, washer and pin from each bracket.

(7) Locate the inertia reel control lever (Ref. Fig. 404). Remove the securing bolts and stow the control lever on the seat base.

(8) Lift and support the front edge of the seat pan to gain access to the 90 deg microswitch, located at the top of the telescopic tube assembly (Ref. Fig. 404).

NOTE: The seat pan rear supports are hinges.

C. Remove Microswitch

(1) Disconnect the microswitch electrical cables from the module block (Ref. Wiring Diagram Manual, 25-11-32).

NOTE: Use the contact extraction tool for this purpose.

(2) Remove the superflexit conduit from the wiring.

(3) Remove the bung from the tube behind the seat pan, RH side.

(4) Remove the securing bolts from the microswitch. Remove the microswitch complete with the wiring.

D. Prepare to Replace Microswitch

(1) Check the Part No.and examine the replacement microswitch for cleanliness and freedom from damage.

(2) Cut off any unwanted cables close to the microswitch (Ref. Wiring Diagram Manual, 25-11-32).

(3) Soft pot the cut microswitch electrical cables using RTV 738 (Ref. Wiring Diagram Manual, 20-41-08).

(4) Prepare a length of silicone sleeve to extend between the microswitch and the end of the seat rear tube.

(5) Place the silicone sleeve over the microswitch cables.

E. Install Microswitch

(1) Comply with the electrical safety precautions.

(2) Position the microswitch and secure it with the two bolts using Loctite 'C' and Locquic 'N' on the threads. Tighten each bolt to a nominal torque.

(3) Route the microswitch wiring through the tube behind the seat pan via the grommet.

(4) Position the bung over the wiring, flush with the end of the sleeving.

(5) Prepare a length of superflexit conduit to extend between the module block (M670) and 1.5 in (38.1 mm) past the inner end of the bung, where fitted.

(6) Place the conduit over the microswitch wiring and through the centre of the bung to extend 1.5 in (3.1 mm) past the inner end of the bung.

(7) Refit the bung in the tube.

(8) Place a 1.5 in (38.1 mm) long, shrink sleeve over the end of the conduit. Heat shrink the sleeve in position (Ref.Wiring Diagram Manual, 20-41-14).

(9) Crimp the contacts to the microswitch cable ends (Ref. Wiring Diagram Manual, 20-42-18).

(10) Check that the microswitch operating mechanism is correctly adjusted (Ref. 25-11-31, Adjustment/Test).

(11) Ensure that the telescopic torque tube area is free from any foreign matter.

(12) Remove the seat pan support and replace the seat pan in position. Refit the pin, washer and a new split pin in each forward support bracket.

(13) Position the inertia reel control lever and secure it with the two bolts and packing washers. Torque-load each bolt to between 35 and 44 lbf in (0.40 and 0.50 mdaN) and wire-lock.

NOTE: The packing washers are fitted between the underside of the seat pan and the control lever.

(14) Route the microswitch superflexit conduit to the module block via the P-clip; fit the P-clip bolt and torque-tighten it to between 35 and 44 lbf in (0.40 and 0.50 mdaN).

(15) Connect the electrical cables to the module block ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram (Ref. Wiring Diagram Manual,25-11-32).

NOTE: Use the contact insertion tool for this purpose.

F. Test

(1) Ensure that the seat base area, including the trolley platform, seat rails and seat pan is free from any foreign matter.

(2) Refit the seat pan cushion and secure it with the Velcro tapes.

(3) Refit the module block guard and secure it with the two torq-set screws and washers. Torque-tighten each screw to between 23 and 27 lbf in (0.26 and 0.30 mdaN).

(4) Remove all tools and equipment from the vicinity of the seat.

(5) Remove the safety clips and close the seat circuit breakers (Ref. para.B).

(6) Carry out a Functional Test - Power Controls (Ref. 25-11-31, Adjustment/Test).

G. Conclusion

(1) Refit and secure the seat base covers with the quick-release fasteners and the washers and screws. Torque-tighten each screw to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(2) Remove all tools and equipment from the aircraft.

14. <u>Switch, Power On and Illuminated Knob (M503)</u> (Ref. Fig. 404)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Loctite grade EV (Ref.20-30-00, No.112)	-
Locquic 'N' (Ref.20-30-00, No.120)	-
Cleaning solvent (Ref.20-30-00, No.473)	-
Torque spanner 0-15 lbf in (0-0.169 mdaN) range	-
'Kimwipe' tissues	-

B. Prepare to Remove Switch

(1) Trip the following circuit breakers and fit safety clips.

R
R
R
R
R
R
R
R
R

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

R C. Remove Switch

R R (1) Locate the switch at the rear of the seat control console (Ref. Detail C).

R R (2) Unscrew and remove the knob, complete with the lamp, from the switch.

R R (3) Remove the securing nut, crinkle washer and locating washer from the switch mounting bracket.

R R (4) Remove the torq-set screws from the switch mounting bracket. Remove the bracket.

R R R (5) Remove the switch from the control console and disconnect the wiring from the three screw type terminals. Remove the switch.

R D. Prepare to Replace Switch

R R (1) Check the Part No. and examine the replacement switch for cleanliness and freedom from damage.

R R (2) Remove the securing nut, crinkle washer and locating washer from the switch.

R R (3) Clean the switch housing and screws with a 'Kimwipe' tissue moistened with cleaning solvent.

R (4) Dry thoroughly with a clean, dry, 'Kimwipe' tissue.

R E. Install Switch

R (1) Comply with the electrical safety precautions.

R R R R R (2) Connect the electrical cables to the switch terminals ensuring that the connections are made in accordance with the cable indentifications and the applicable wiring diagram (Ref. Wiring Diagram Manual, 25-11-32). Tighten the terminal screws to a nominal torque.

(3) Position the switch adjustment nut as required and fit the switch into the switch mounting bracket.

(4) Position the locating washer, then the crinkle washer. Secure the switch with the securing nut, finger tight.

(5) Position the switch mounting bracket and secure it with the four torq-set screws tightened to a nominal torque.

NOTE: Wet assemble the screws using Loctite grade EV and Locquic 'N'.

(6) Torque-tighten the switch securing nut to between 8.5 and 10 lbf in (0.095 and 0.113 mdaN).

(7) Check that the lamp is fitted in the knob and screw the knob into the switch.

F. Test

(1) Remove all tools and equipment from the vicinity of the seat.

(2) Remove the safety clips and close the circuit breakers (Ref.para.B(1)).

(3) Carry out a Functional Test - Power Controls (Ref. 25-11-31, Adjustment/Test).

G. Conclusion

(1) Remove all tools and equipment from the aircraft.

15. Switch (M581) and (M580) (Ref. Fig. 404)

NOTE: The removal/installation procedures for the Vertical Master Switch (M581) and the Vertical Control Switch (M580) are identical.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Soldering iron	-

DESCRIPTION	PART NO.
Solder, resin-cored (BS441)	-
Safety flux	-
Industrial methylated spirits (BS3591)	-
Crocus paper, fine grade	-

B. Prepare to Remove Switch

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

C. Remove Switch

(1) Locate the appropriate switch at the seat control console (Ref. Detail C).

NOTE: The vertical master switch (M581) is the aft switch.

(2) Remove the securing screws from the control console side panel; remove the panel.

(3) Loosen the switch securing nut.

(4) Lift out the switch plate to gain access to the switch terminals.

NOTE: The switch plate is located on two dowels.

(5) Unsolder the wiring from the switch.

(6) Remove the switch securing nut, shakeproof washer

and locating washer from the switch. Remove the switch.

D. Prepare to Replace Switch

(1) Check the Part No. and examine the replacement switch for cleanliness and freedom from damage.

(2) Remove the securing nut, shakeproof washer and locating washer from the switch.

<u>NOTE</u>: If an adjustment nut is fitted on the switch, this must be removed and discarded.

E. Install Switch

(1) Comply with the electrical safety precautions.

(2) Position the switch in the switch plate, position the locating washer and the shakeproof washer. Fit the securing nut and secure it, finger tight.

(3) Soft-solder the electrical cables to the switch terminals, ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

(4) Position the switch plate on the dowels and tighten the switch securing nut to a nominal torque.

(5) Examine the inside of the control console for cleanliness and remove any foreign objects.

(6) Position the control console side panel and secure it with the four screws tightened to a nominal torque.

F. Test

(1) Remove all tools and equipment from the vicinity of the seat.

(2) Remove the safety clips and close the circuit breakers (Ref. para. B(1)).

(3) Carry out a Functional Test - Power Controls (Ref. 25-11-32, Adjustment/Test).

G. Conclusion

(1) Remove all tools and equipment from the aircraft.

R 16. Switch (M515) and (M516) (Ref. Fig. 404)

R NOTE: The removal/installation procedures for the Forward and Aft Master Switch (M515) and the Forward and Aft Control Switch (M516) are identical.

R A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque spanner 0-10 lbf in (0-0.113 mdaN) range	-
Soldering iron	-
Solder, resin-cored (BS441)	-
Safety flux	-
Industrial methylated spirits (BS3591)	-
Crocus paper, fine grade	-
JC5-A Jointing compound (Ref. 20-30-00, No.382)	-
Loctite grade 'H' (Ref.20-30-00, No.112)	-
Locquic 'N' (Ref.20-30-00, No.120)	-
Cleaning solvent (Ref.20-30-00, No.473)	-
'Kimwipe' tissues	-

R B. Prepare to Remove Switch

R (1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

C. Remove Switch

(1) Locate the two ganged switches in the top of the trolley crashlock release lever on the top of the control console (Ref. Detail C).

(2) Remove the screw from the ganging bar: Remove the ganging bar.

(3) Remove the securing nuts, shakeproof washers and locating washers from both switches.

(4) Remove the securing screws from the control console side panel. Remove the side panel.

(5) Remove both switches, together with the wiring and cable support bracket, from the trolley crashlock release lever housing, into the control console.

(6) Unsolder the wiring from the appropriate switch terminals. Remove the switch.

D. Prepare to Replace Switch

(1) Check the Part No. and examine the replacement switch for cleanliness and freedom from damage.

(2) Remove the securing nut, shakeproof washer and locating washer from the switch.

NOTE: If an adjustment nut is fitted on the switch, this must be removed and discarded.

E. Install Switch

(1) Comply with the electrical safety precautions.

(2) Soft-solder the electrical cables to the switch terminals, ensuring that the connections are made in accordance with the applicable wiring diagram (Ref. Wiring Diagram Manual, 25-11-32).

(3) Position both switches, complete with wiring and cable support bracket, in the correct locations in the trolley crashlock release lever housing.

NOTE: Switch M516 is the LH switch.

(4) Position the locating washer and the shakeproof washer on each switch. Fit the securing nut to each switch and tighten each nut to a nominal torque.

(5) Examine the inside of the control console for cleanliness and remove any foreign objects.

(6) Position the control console side panel and secure it with the four screws. Tighten each screw to a nominal torque.

(7) Clean the ganging bar using a 'Kimwipe' tissue moistened with cleaning solvent. Wipe dry using a clean 'Kimwipe' tissue.

(8) Examine the ganging bar and ensure that it is undamaged.

(9) Apply a thin coating of jointing compound (Ref.20-30-00, No.382) to the mating surfaces of the ganging bar and position over the two switch toggles.

(10) Wet assemble the screw in the ganging bar using Loctite grade 'H' and Locquic 'N'. Torque-tighten the screw to 5 lbf in (0.056 mdaN).

NOTE: Support the ganging bar when tightening the screw to avoid damage to the switches.

(11) Remove all traces of excess jointing compound from the ganging bar using a clean 'Kimwipe' tissue.

F. Test

(1) Remove all tools and equipment from the vicinity of the seat.

(2) Remove the safety clips and close the circuit breakers (Ref. para. B(1)).

(3) Carry out a Functional Test - Power Controls (Ref. 25-11-31, Adjustment/Test).

G. Conclusion

R (1) Remove all tools and equipment from the aircraft.

R 17. Start Control Unit (M594) (Ref. Fig. 405)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-

B. Prepare to Remove Start Control Unit

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

(2) Remove the shelf cover and locate the start control unit at shelf 18-216.

C. Remove Start Control Unit

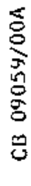
(1) Disconnect the bayonet-type electrical connector from the receptacle on the top of the start control unit.

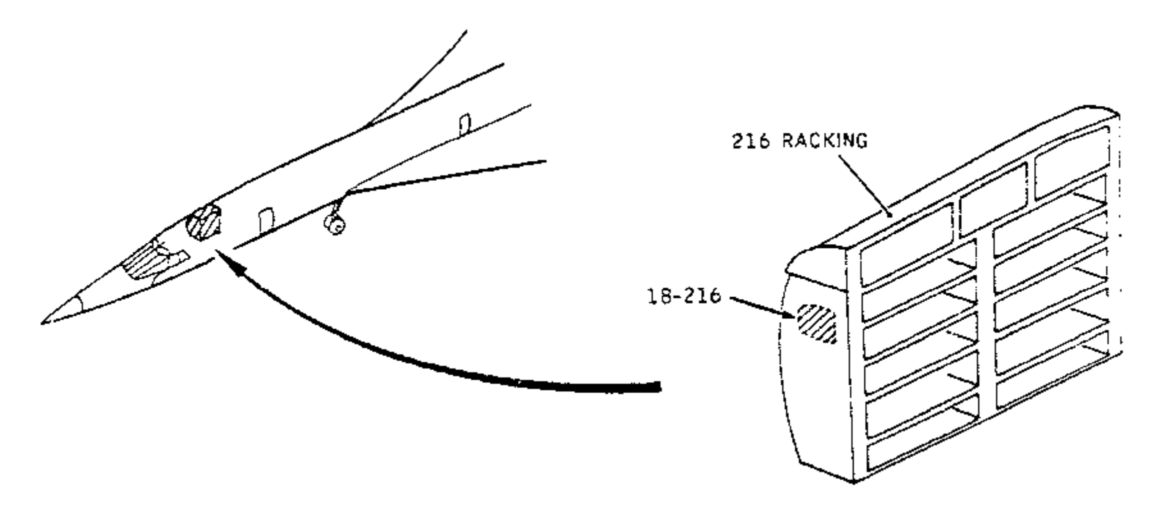
(2) Remove the securing screws from the start control unit; remove the start control unit from the mounting.

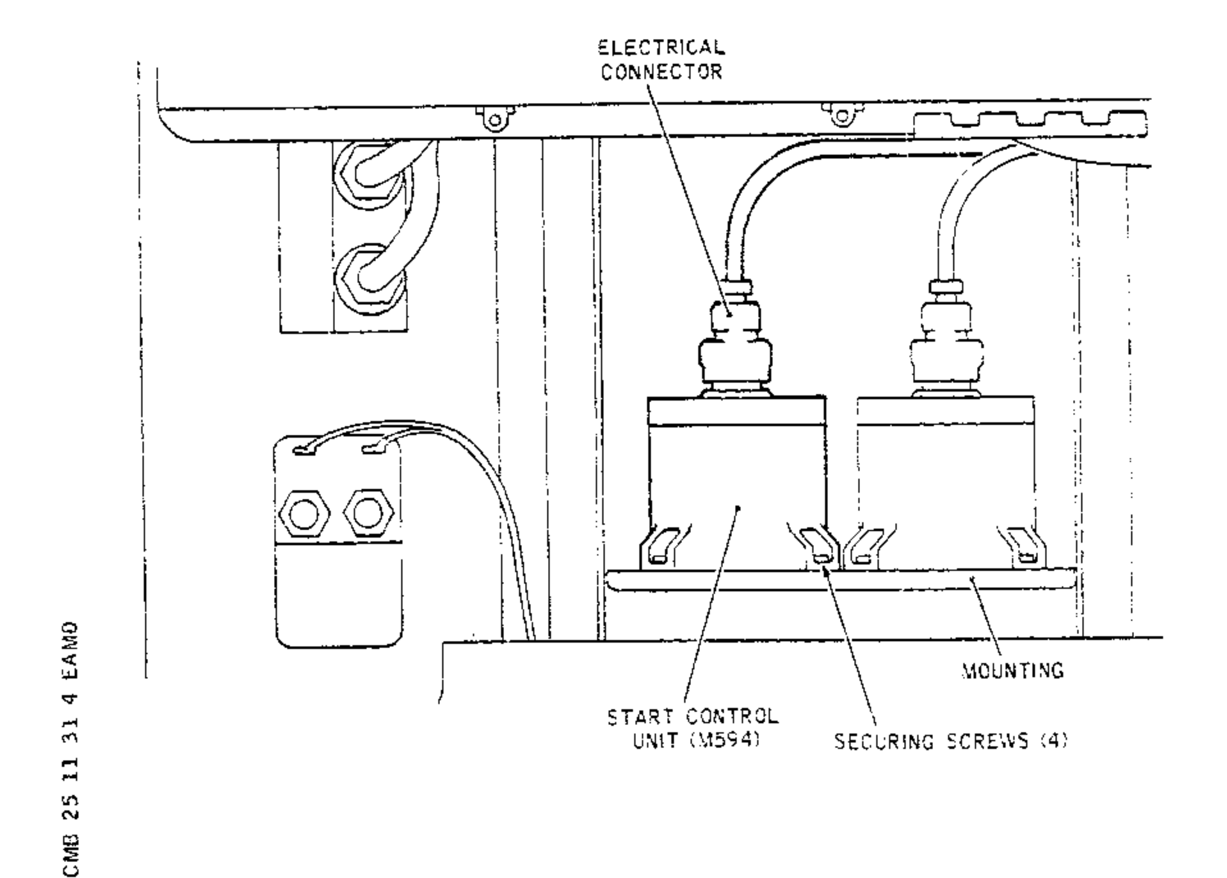
D. Prepare to Replace Start Control Unit

(1) Check the Part No. and examine the replacement start control unit for cleanliness and freedom from damage.

(2) Remove the blanking cap from the electrical connector.







Third Crew Member's Seat - Start Control Unit
Figure 405

E. Install Start Control Unit

(1) Comply with the electrical safety precautions.

(2) Position the start control unit on panel 18-216 and secure it with the four securing screws; apply a nominal torque to each screw.

(3) Connect the electrical connector to the receptacle on the top of the start control unit, ensuring that the mating surfaces are clean and undamaged.

F. Test

(1) Remove the safety clips and close the circuit breakers (Ref. para.B).

(2) Carry out a Functional Test - Power Controls (Ref. 25-11-31, Adjustment/Test).

G. Conclusion

(1) Check that the area is clean and refit the shelf cover to racking 216.

(2) Remove all tools and equipment from the aircraft.

THIRD CREW MEMBER'S SEAT - ADJUSTMENT/TEST

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

1. General

The seat, which can be power operated or manually adjusted for height, is mounted on rails on a secondary trolley. The trolley can be power operated or moved manually along rails, parallel to the aircraft centreline, and located on the right of the flight compartment.

This topic describes the adjustment of the various control mechanisms of the seat and trolley assembly and details the test procedure for each of the seat functions.

2. Motor Disconnect/Crashlock Flaps Adjustment (Ref. Fig.501 and 506).

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque screwdriver 0 - 15 lbf in (0 - 0.179 mdaN) range	-
Non-corrodible steel wire, 0.028 in (0.7 mm).	-

B. Prepare to Adjust Flaps

(1) Trip the seat circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
3CM SEAT SUP	14-216	M252	E17
3CM SEAT CONT	15-216	M255	D22

(2) Position the seat in alignment with the 3CM station

and with the aircraft centre line. Engage the trolley crashlock pin with the rail.

(3) Remove the screws securing the cover at the outboard rear of the trolley then lift off the cover.

C. Adjust Flaps

(1) Adjust the seat to the fully down and forward facing position.

(2) Lift the crashlock release lever, to its stop and check that a minimum of 0.30 in (7.61 mm) horizontal movement of the lower edge of the crashlock flap on the trolley is obtained. If necessary, adjust the operating cable and controls on the seat to obtain this movement.

(a) Ensure that the release lever is fully down.

(b) Adjust the lower screw stop and also the cable hose screwed ferrule end to give a protrusion of the push rod from the guide plate of 0.74 in (18.8 mm).

<u>NOTE</u>: This dimension is to be set to maintain a 0.003 to 0.005 in (0.08 to 0.13 mm) gap between the push rod head and the screw stop after the cable outer hose has been adjusted at its two anchor points to take up the slack in the cable.

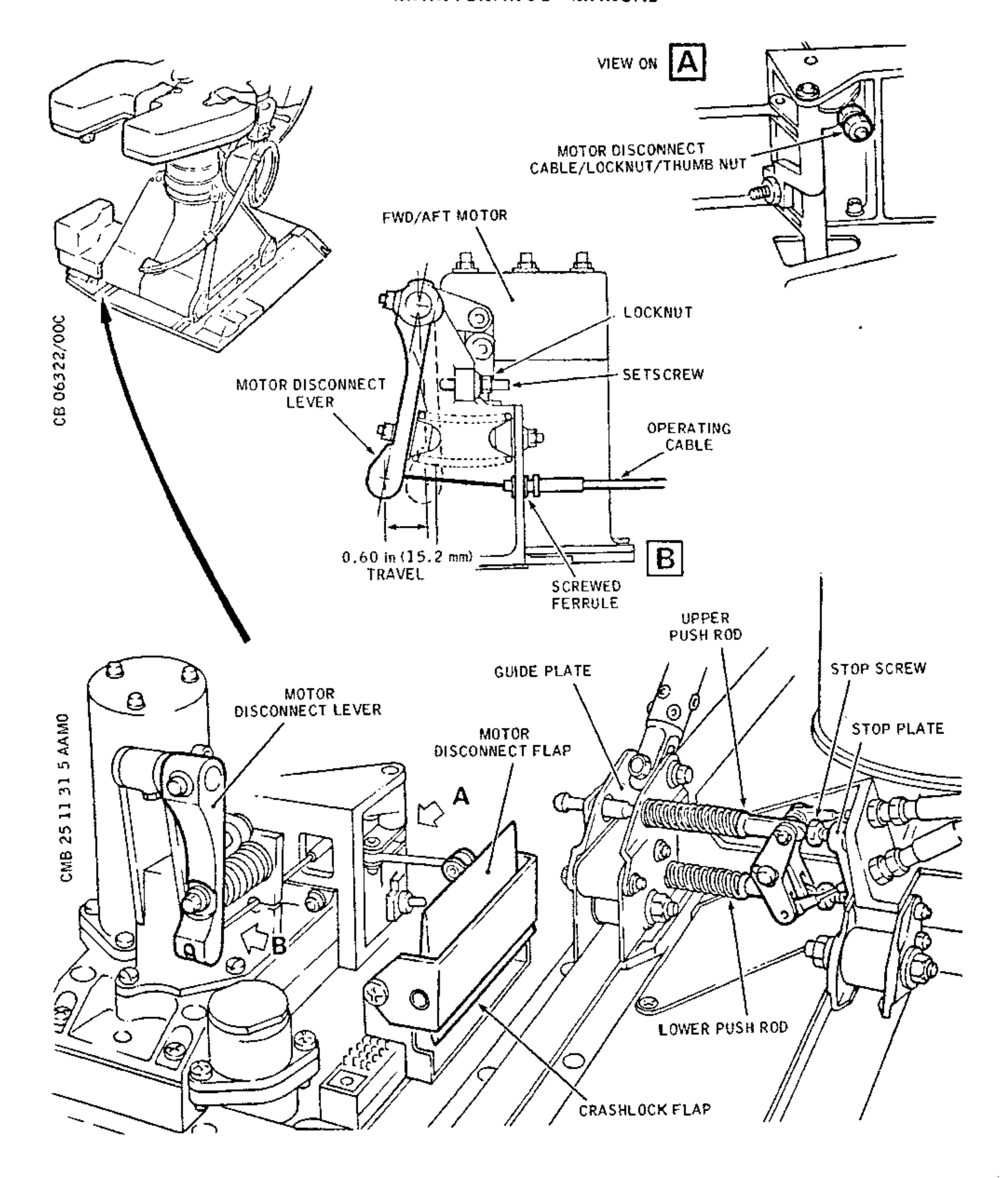
(c) Tighten and torque load the stop screw lock nut to between 12 to 15 lbf in (0.13 to 0.17 mdaN).

(d) Tighten and torque load the cable ferrule retention nuts to between 25 to 30 lbf in (0.28 to 0.34 mdaN) and wirelock.

(e) Lift the crashlock release lever to its stop and ensure that the crashlock pin lifts clear of the rail.

(3) Lift the emergency crashlock and motor drive disconnect lever, and check that a minimum of 0.70 in (17.78 mm) horizontal movement of the trolley is obtained. If necessary, adjust the operating cable and controls on the seat to obtain this movement.

(a) Ensure that the crashlock lever is fully down.



Motor Disconnect and Crashlock Flaps Adjustment
R Figure 501

(b) Adjust the upper selector stop screw and also the cable hose screwed ferrule ends to give a protrusion of the push rod from the guide plate of 0.74 in (18.8 mm).

NOTE: This dimension is to be set to maintain a 0.003 to 0.005 in (0.08 to 0.13 mm) gap between the push rod head and the screw stop after the cable outer hose has been adjusted at its two anchor points to take up the slack in the cable.

(c) Tighten and torque load the stop screw nut to between 12 to 15 lbf in (0.13 to 0.17 mdaN).

(d) Tighten and torque load the cable ferrule retention nuts to between 25 to 30 lbf in (0.28 to 0.34 mdaN) and wirelock.

(e) Lift the emergency crashlock and motor drive disconnect lever to its stop and ensure that the crashlock pin lifts clear of the rail.

(4) Release the cable from the motor disconnect lever assembly after ensuring that the drive dogs are engaged. Operate the motor disconnect lever to contact the screw stop on its mounting bracket. The movement of this lever at the point of cable attachment must be 0.60 in (1.52 mm) (Ref. Fig. 501). Adjust the screwed stop to achieve this measurement and then tighten. Torque load the locknut to between 12 to 15 lbf in (0.13 to 0.17 mdaN).

(5) Reconnect the cable to the motor disconnect lever and
R adjust the locknut until the cable becomes taut so that the lever just moves. Operate the emergency crashlock and motor drive disconnect lever and check that the motor drive has disengaged by moving the trolley fore and aft. If necessary, re-adjust the locknut on the cable to effect the disconnection. Lift the crashlock release lever and the emergency disconnect lever to their relative stops and, carefully maintaining them in this position, adjust the baulk screw in the release linkage on the trolley to make contact with the opposing lever. Screw the baulk screw in one further turn and wirelock it.

(6) Release both operating levers and raise the emergency crashlock and motor disconnect lever fully. Check that the crashlock pin has lifted clear of the out-

board rail and that the motor drive has disconnected satisfactorily.

3. Forward and Rearward Travel Limit Switches Adjustment

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque spanner 0-40 lbf in, (0-0452 mdaN) range.	-
Slip gauges	-
Non-corrodible steel wire 0.028 in (0.7 mm) dia.	-

B. Prepare to Adjust Limit Switches

(1) Make available ground electrical power (Ref.24-41-00).

(2) Set seat circuit breakers and pull the power supply switch to bring electric power onto the seat.

C. Adjust Forward Travel Limit Switch (Ref. Fig. 502)

(1) Press down the foot pedal on the trolley thus re-
leasing the catch permitting the captain's seat and
attached inter-seat strut to pass the trolley. Keep
the pedal pressed down and operate the emergency
R crashlock release handle on the captain's seat and
R move the seat fully aft. Release the pedal on the 3CM
R seat trolley.

(2) Position the seat within the white indicator bands on the trolley and facing forward, operate the emergency crashlock release lever and move the trolley and seat forward on its rails to approximately 0.5 in (12.7 mm) from the stop on the outboard trolley rail.

(3) Adjust the forward travel microswitch striker at the
forward, left-hand side of the trolley on the inboard
rail, forward and rearwards on its serrations; secure
with the attachment bolts each time the adjustment is
R made, until the trolley, when powered towards the
R front stop on the outboard trolley rail at maximum
R speed, is brought to rest within 0.05 in to 0.10 in

R (1.27 to 2.54 mm) of the stop.

(4) Torque tighten the striker securing bolts to between 30 to 40 lbf in (0.339 to 0.452 mdaN) and wirelock.

(5) Proceed to adjust the rear travel limit switch.

D. Adjust Rearward Travel Limit Switch

R (1) Make available ground electrical power (Ref.24-41-00).

(2) Set the seat circuit breakers and pull the power supply switch to bring electrical power onto the seat.

(3) Position the seat within the white indicator bands on the trolley and facing forward, operate the emergency crashlock release lever. Move the trolley and seat rearwards on the rails to approximately 0.5 in (12.7 mm) from the stop on the outboard trolley rail.

(4) Adjust the rearward travel motor microswitch striker at the rearward left hand side of the trolley on the inboard rail, forward and rearward on its serrations, securing with the attachment bolts each time the adjustment is made, until the trolley, when powered
R rearward towards the rear stop on the outboard trolley
R rail at maximum speed, is brought to rest within 0.05
R to 0.10 in (1.27 to 2.54 mm) of the stop.

(5) Torque tighten the striker securing bolts to between 30 and 40 lbf in (0.339 to 0.452 mdaN) and wirelock.

(6) Test the powered forward and rearward travel of the seat trolley (Ref.para.9B) and check the operation of the forward and rearward travel limit switches.

4. Inter-seat Travel Limit Switch Adjustment

A. Equipment and Materials

DESCRIPTION	PART NO
Torque spanner 0 - 32 lbf in (0 - 0.361 mdaN) range	-
Torque screwdriver 0 - 15 lbf in (0 - 0.170 mdaN) range	-

DESCRIPTION	PART NO
R Non-corrodible steel wire R 0.018 in (0.4 mm) dia.	-

B. Prepare to Adjust Limit Switch Plunger

R (1) Make available ground electrical power (Ref.24-41-00).

(2) Set the seat circuit breakers and pull the power supply switch to bring electrical power onto the seat.

(3) Lift the emergency crashlock release lever on the Captain's seat and move the seat to a position approximately 12 in (304 mm) rearward of the forward stop position. Release the crashlock lever and push the seat to ensure that the crashlock pin is located.

(4) Position the third crew member's seat within the white indicator bands on the trolley and facing forward. Lift the emergency crashlock lever and move the seat and trolley to a position where the shoulder on the inboard side of the interseat strut on the rear of the Captain's seat is approximately 3 in (76.0 mm) from the limit switch striker face on the inboard forward corner of the third crew member's seat trolley.

(5) Remove the screws securing the covers along the inboard edge of the trolley and remove the covers to
R expose the switch and its striker.

C. Adjust Limit Switch Plunger (Ref. Fig. 502)

(1) Remove the wire locking from the locknut on the microswitch operating bolt and, with the striker extended fully forward and the overtravel spring pot contacting the striker, adjust the microswitch operating bolt to just contact the microswitch plunger.

(2) Remove the safety clips and reset the seat circuit breakers

(3) Power operate the 1st Pilot's seat aft at maximum speed until it is brought to rest by contact of the inter-seat strut with the microswitch operating

switch on the 3CM seat trolley.

(4) Measure the gap 'X' between the aft face of the striker shoe and the forward face of the inter-seat latch on the trolley. Adjust the microswitch operating bolt into the springpot by an equal dimension minus 0.1 in (2.54 mm).

(5) Power operate the 1st Pilot's seat forward once more and repeat (3) until, by re-adjusting the microswitch operating bolt relative to the springpot, the gap 'X' measures between 0.05 and 0.10 in (1.27 and 2.54 mm).

(6) Torque load the operating bolt locknut to between 27
R and 32 lbf in (0.305 and 0.361 mdaN) and lock it with
R 0.018 in (0.4 mm) dia wire. Check that when the
R spring-pot plunger is depressed into the spring-pot
R sleeve, it will return freely.

(7) Refit the covers to the inboard end of the trolley and torque load the securing screws to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(8) Test the inter-seat travel limit switch operation (Ref. paras 8A and 8B).

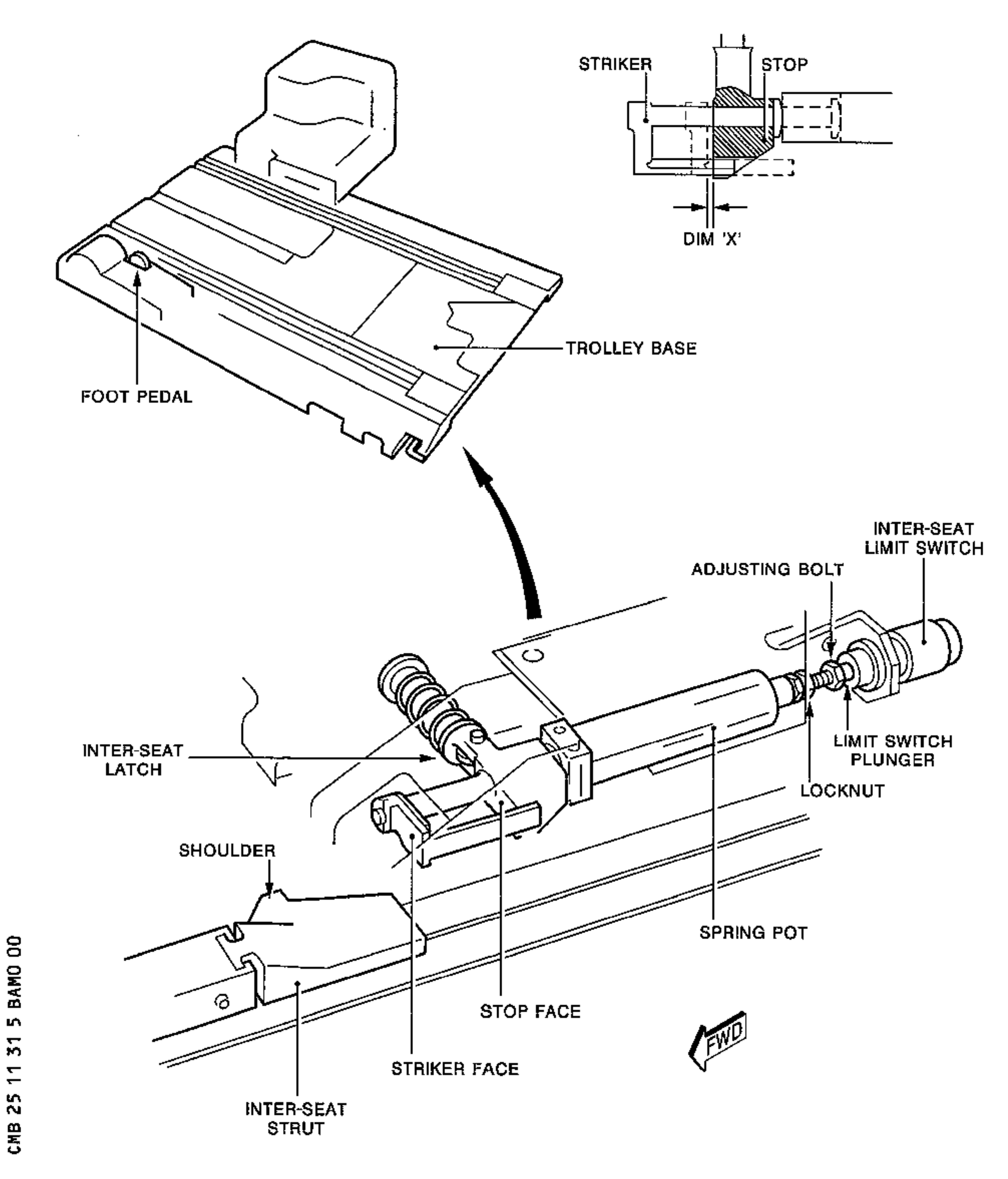
5. Seat Transverse Travel Crashlock Pin Adjustment

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque screwdriver 0 - 15 lbf in (0 - 0.170 mdaN) range	-
Slip gauges	-
Straight edge, 12 in (30.48 cm) minimum length	-

B. Prepare to Adjust Crashlock Pin

(1) Trip the seat circuit breakers.



R

Inter-seat Travel Limit Switch Adjustment
Figure 502

(2) Remove the seat pedestal covers.

C. Adjust Crashlock Pin (Ref. Fig. 503)

(1) Position the seat so that the crashlock pin rests on the surface of the transverse rail of the trolley. i.e., not engaged in the hole in rail.

(2) Using the top horizontal face of the seat side beam as a datum, measure the dimension between the side-beam and the top of the crashlock pin using slip gauges and a straight edge.

(3) Move the seat to a position where the crashlock pin engages the hole in the rail.

(4) Adjust the length of the crashlock control cable from the transverse travel lock lever to obtain a dimension, measured with the slip gauges and straight-edge, between the top surface of the side beam and the head of the crashlock pin which is equal to
R the dimension found in operation (2) less 0.25 in
R (6.35 mm).

(5) Tighten all locknuts.

(6) Fit the seat pedestal covers, torque load the securing screws to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(7) Reset the seat circuit breakers.

(8) Test the crashlock operation (Ref. para.7A).

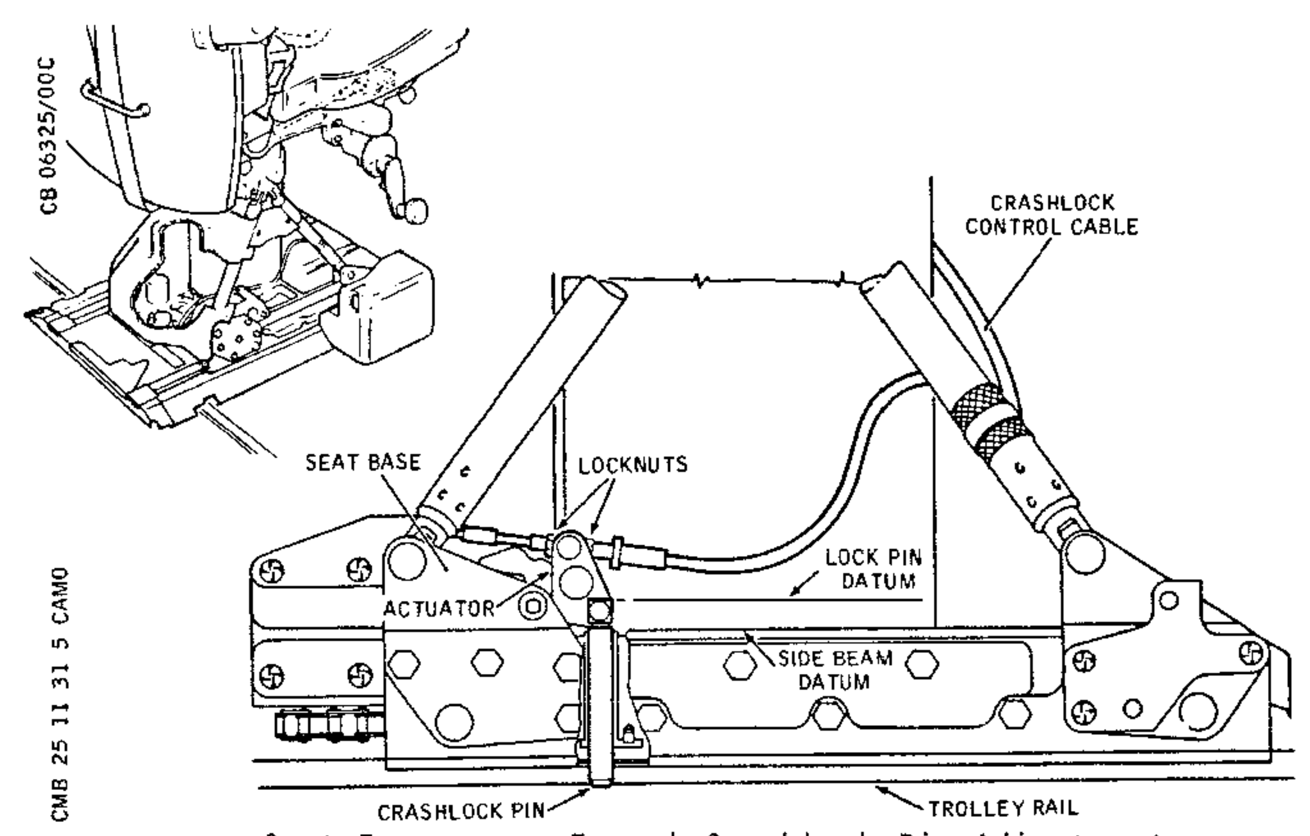
6. Seat Rotate/Trolley Travel Interlock Limit Switch Adjustment

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Test lamp	-

B. Prepare to Adjust Interlock Limit Switch

(1) Trip the seat circuit breakers.



Seat Transverse Travel Crashlock Pin Adjustment
R Figure 503

C. Adjust Interlock Switch (Ref. Fig. 504)

(1) Remove the two parallel pins holding the forward end of the seat pan to the seat structure. Lift the seat pan sufficiently to obtain access to the microswitch. Fit a test lamp across the terminals of the microswitch.

(2) Operate the rotation lock release lever and rotate the seat to the outboard facing position i.e. with the centre-line of the seat parallel to the seat rails.

(3) Adjust the striker screw until the switch just operates, extinguishing the test lamp.

(4) Turn the striker screw clockwise 1 to 1.25 turns to check the switch setting. Operate the rotation lock release lever and rotate the seat in a counter-clockwise direction until it reaches the stop. Check that the test lamp is now illuminated.

(5) Remove the test lamp and reset the seat circuit breakers.

(6) Test the seat as in para.8A and 8B and check the inhibiting function of the microswitch.

CB 06326/00A

SEAT ROTATE LOCK LEVER

SWITCH TERMINALS

MICROSWITCH

STRIKER BOLT

CMB 25 11 31 5 DAMO

Seat Rotate/Trolley Travel Interlock Limit Switch Adjustment
Figure 504

7. Maximum Seat Raise and Lower Travel Limit Switches Adjustment (Ref. Fig. 505)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque spanner 0 - 32 lbf in (0 - 0.361 mdaN) range	-

DESCRIPTION	PART NO.
Torque screwdriver 0 - 15 lbf in (0 - 0.170 mdaN) range	-
Test lamp	-

B. Prepare to Adjust Limit Switches

(1) Trip the seat circuit breakers.

(2) Remove the seat pedestal covers.

C. Adjust Raised Travel Limit Switch

(1) Connect a test lamp across the terminals of the limit switch.

(2) Manually operate the seat to its maximum height.

(3) Slacken the locknut on the target screw which is incorporated in the lever at the top of the telescopic tube assembly. Turn the screw in a clockwise direction until the test lamp is just extinguished. Rotate the screw clockwise a further two turns then torque-load the locknut to between 27 and 32 lbf in (0.305 and 0.361 mdaN) and wire-lock.

(4) Remove the test lamp.

(5) Proceed to adjust the lower travel limit switch (Ref. para.D).

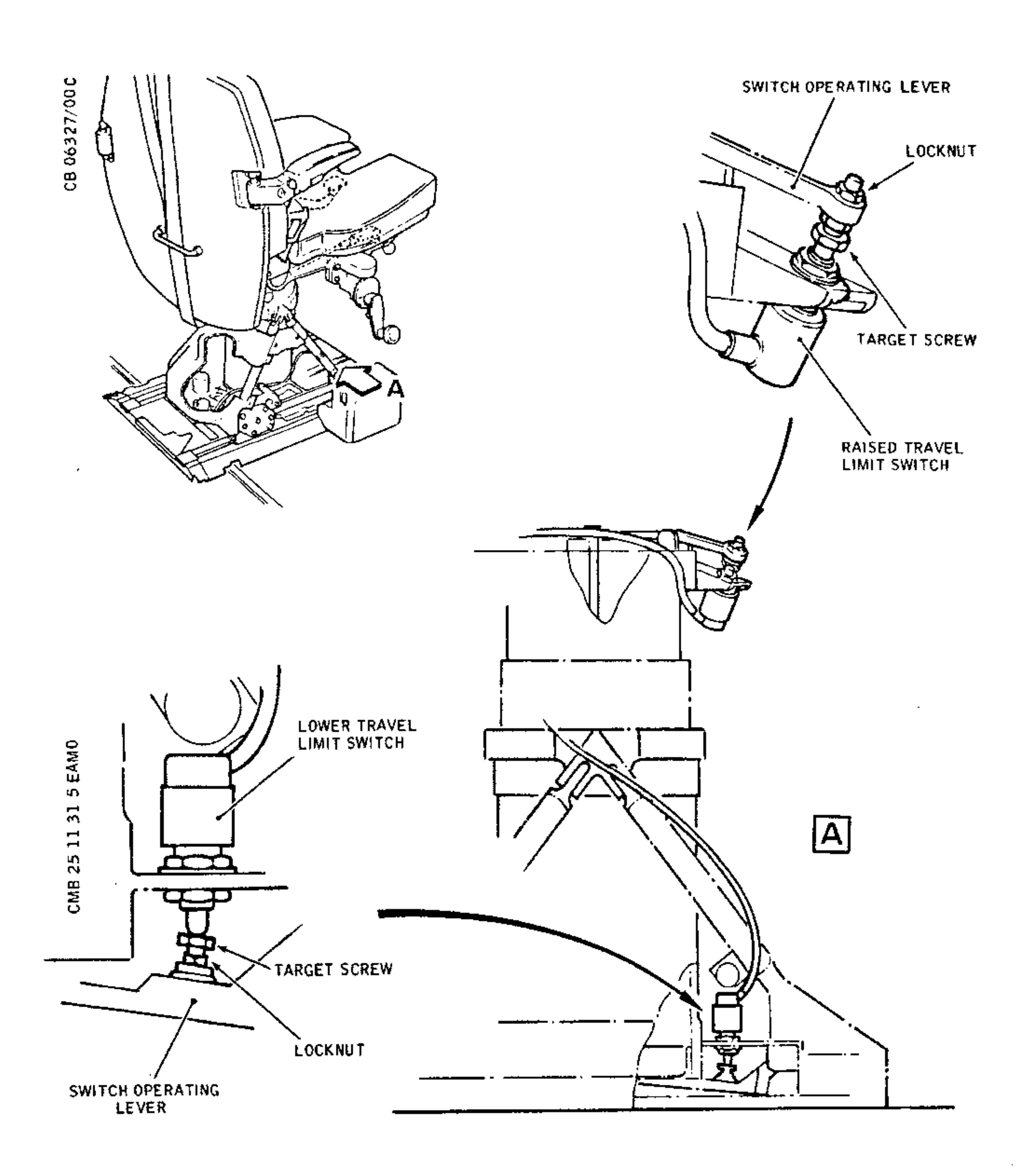
D. Adjust Lower Travel Limit Switch

(1) Connect a test lamp across the terminals of the limit switch.

(2) Manually operate the seat to lowest limit.

(3) Slacken the locknut on the target screw which is incorporated in the lever at the base of the telescopic tube assembly. Turn the screw in a clockwise direction until the test lamp is just extinguished. Rotate the screw clockwise a further two turns then torque-load the locknut to between 27 and 32 lbf in (0.305 and 0.361 mdaN) and wire-lock.

Printed in England



Maximum Seat Raise and Lower Travel Limit
Switch Adjustment
Figure 505

(4) Remove the test lamp.

(5) Fit the seat pedestal covers. Torque-load the cover securing screws to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

(6) Reset the seat circuit breakers.

(7) Test the powered height adjustment of the seat (Ref. para.9C).

8. Functional Test - Manual Controls (Ref. Fig. 506)

A. Seat Transverse Travel

(1) Position the secondary trolley to coincide with the
R centre of the knee-well in the 3CM panel and rotate
R the seat to face outboard. Lift the transverse
R travel lock lever and pull the seat inboard
R away from the leg recess in the systems management
R control console. Check that the seat moves freely
R along the whole length of the rails, without undue
R clearance between the rails and the rollers.

(2) Push the seat fully outboard into the leg recess and check that the front centre roller slides easily onto the stowage rail.

(3) Pull the seat inboard and release the transverse travel lock lever at each lock position. Check that the locking pin correctly engages with the holes in the aft rail and that the seat is positively locked. Check that the seat can be moved freely from these positions when the lock lever if lifted.

B. Seat Rotation

(1) Position the seat fully inboard (out of the leg recess). Depress the seat rotation lock release lever and rotate the seat so that it is facing forward, then release the lever and check that the seat is locked against rotation.

(2) Repeat the foregoing check with the seat facing outboard and also at 15 deg intervals between facing outboard and forward.

C. Seat Fwd/Aft Travel

(1) Position the seat so that its centre-line is within
R the white 2.0 in (50.8 mm) range band immediately

Printed in England

R right of the aircraft centre-line, then lift the
R emergency crashlock and drive release lever and
R manually move the seat/trolley assembly fully forward
R and aft. Check that the movement is smooth, without
R undue clearance between rollers and the rails. Check
that the lock pin engages the holes in the rail and positively locks the trolley at each of the locking positions.

D. Seat Height Variation

(1) Sit in the seat. Disengage the height adjustment handle from the slot in the locking plate.

(2) Rotate the handle and check that there is ease of movement throughout the whole range of height adjustment.

(3) At various positions push the handle into the locking slot and check for positive locking.

E. Seat Back Angle Variation.

(1) Sit in the seat and lift the back angle adjustment locking lever, then lean backward to exert pressure against the back of the seat. Release the lever at various back angle positions and check that the seat back is positively locked.

(2) Move the back of the seat to the full recline (rearward) position. Keep the locking lever in the raised position, then ease forward and check that the spring loading moves the back of the seat to the fully forward position.

F. Armrest Adjustment

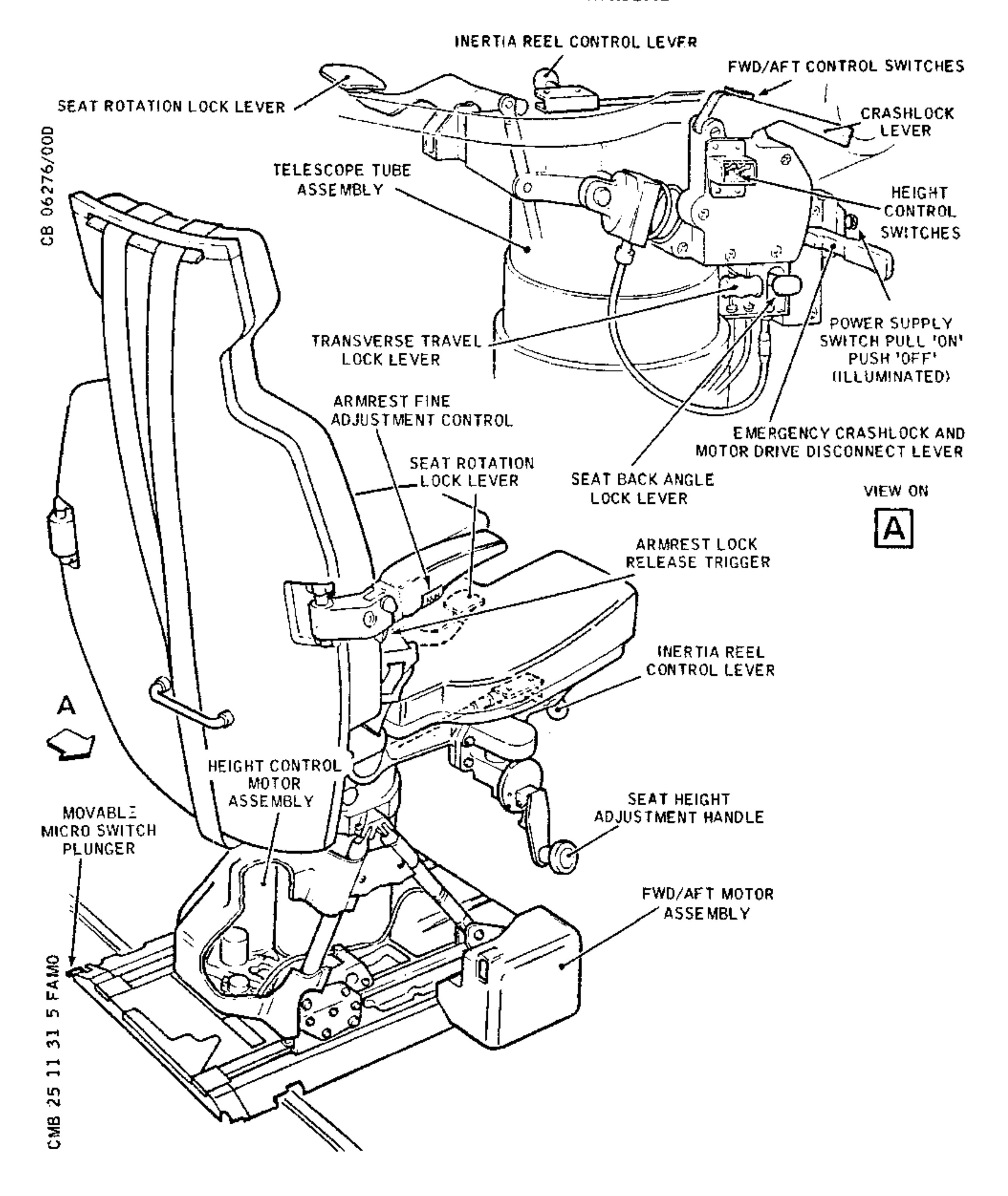
(1) Operate each armrest release and pivot the armrests through 90 deg ensuring that the locking and release mechanism functions correctly.

(2) Rotate the knurled adjuster screws and check that fine adjustment is obtained in radial movement of the armrests.

(3) Ensure that the armrests can only be stowed behind the seat back when they are locked in the raised position.

G. Safety Harness

(1) Sit in the seat and fasten the safety harness in



Third Crew Member's Seat - Controls
Figure 506

R

the usual position on the body.

(2) Move the inertia harness control lever to the rear (automatic locking release) position to ensure reel mechanism is unlocked, then release the lever which should automatically return to the centre position.

(3) Check that with the lever in the centre position it is possible to slowly withdraw the harness strap from the reel and that when tension on the strap is released it is retracted into the reel.

(4) Attempt to withdraw the strap with a sudden jerk and ensure that withdrawal is baulked by action of the inertia lock within the reel.

(5) Move the control lever to the rear position again, then release it to return to the centre position. Check that the harness moves freely in either direction. Pull the strap partly out and, retaining the strap, move the control lever to the forward (manual locking) position. Check that reel out of the strap is blocked but that it reels in automatically when released.

NOTE: With the control lever set in either the forward or centre positions, reel in of the harness should be accompanied by a distinctive audible rattle.

(6) Disconnect the harness clasp and taking each lap strap, in turn; check that the length adjustment can be satisfactorily effected.

9. Functional Test - Power Controls (Ref. Fig. 506)

R A. Prepare to Test Seat

(1) Make available electrical ground power (Ref. 24-41-00).

(2) Manually operate the seat so that it is facing forward and positioned within the 2.0 in (50.8 mm) range band immediately right of the aircraft centreline as indicated by the white markings on the seat and trolley.

(3) Sit in the seat. Check that the power supply switch on the rear of the seat control console, is illuminated; if not, pull the switch and check that it illuminates thus indicating that power supply is

available.

B. Test Seat Fwd/Aft Travel

(1) Lift the crashlock release lever on the top of the seat control console and operate the ganged control switches in the same direction as movement is required. Check that the trolley assembly moves smoothly in both the forward and aft directions. Check the inching capabilities and ensure that the lock pin readily engages the locking holes when the seat is stopped and that the lever releases and moves fully downwards at the seat locking positions.

(2) Electrically motivate the seat fully forward and then aft, at maximum speed, and check that the travel limit switches stop the seat assembly before it reaches the stops on the outboard rail.

(3) Check that motorized fore-and-aft travel is inhibited by the seat rotation limit microswitch unless the seat is facing forward.

C. Test Seat Up/Down Travel

(1) Position the seat so that it is facing forward then operate both height control switches in the same direction as movement is required. Check that the seat moves in the corresponding direction and that the seat height motor is stopped by the limit switches at the upper and lower limit positions.

D. Conclude Test

(1) Press the switch on the rear of the seat control console and check that the switch 'power on' indicator lamp is extinguished.

(2) Switch off and disconnect electrical ground power (Ref. 24-41-00).

(3) Position the seat so that it is facing outboard and in line with the leg recess in the systems management console. Pull up the transverse travel lock release lever and push the seat into the stowed position in the console.

R 10. <u>Functional Test - Seat Rotate/Trolley Travel Interlock Switch</u>

R A. Prepare to Test

(1) Make available electrical ground power (Ref. 24-41-00).

(2) Manually operate the seat so that it is facing forward and positioned within the 2.0 in (50.8 mm) range band immediately right of the aircraft centre-line as indicated by the white markings on the seat and trolley.

(3) Sit in the seat. Check that the power supply switch on the rear of the seat control console, is illuminated; it not, pull the switch and check that it illuminates thus indicating that power supply is available.

B. Test Seat Rotate/Trolley Travel Interlock Switch

(1) Check that motorized fore-and-aft travel is inhibited by the seat rotation limit microswitch unless the seat is facing forward.

C. Conclude Test

(1) Press the switch on the rear of the seat control console and check that the switch 'power on' indicator lamp is extinguished.

(2) Switch off and disconnect electrical ground power (Ref. 24-41-00).

(3) Position the seat so that it is facing outboard and in line with the leg recess in the systems management console. Pull up the transverse travel lock release lever and push the seat into the stowed position in the console.

THIRD CREW MEMBER'S SEAT - INSPECTION/CHECK

R 1. General (Ref. Fig. 601)

The seat is mounted on a secondary trolley which, in turn, is located on tracking rails on the flight compartment floor opposite the third crew member's station.

R In addition to inspection/checks made on the seat and trolley
R in-situ, a check is made with the trolley removed to determine
R wear limits on the crashlock pin and rail.

R 2. Seat (Installed)

A. Inspection

(1) Visually inspect the inertia safety harness attachments for distortion, cracks, corrosion, or damage.

(2) Inspect the harness webbing for cleanliness, fraying, opening of weave, and security of stitching.

(3) Inspect the electrical cables for evidence of chafing and deterioration.

(4) Inspect the seat pan and backrest cushions for serviceability.

(5) Visually inspect seat structure and support structure for burrs, cracks and damage.

B. Check

(1) Check the rollers and the associated rails for security, cleanliness and freedom from damage.

(2) Check all nuts, bolts and attached components for security.

(3) Check that there are no burrs, cuts or damaged edges on the seat structure and attached parts.

(4) Check the control cables for kinking, fraying or derangement, and for security of the cable and fittings.

(5) Operate the manual control handles and check for positive operation of the associated mechanisms, thus indicating that the cables are not stretched.

(6) Operate the electrical control switches on the seat

Printed in England

console. Check that they return to the centre (off) position when they are released.

R 3. Secondary Trolley (Installed)

A. Inspection.

(1) Inspect the seat stops, mounted on the inboard side of the trolley, for security of attachment.

(2) Visually inspect the trolley for distortion, cracks, corrosion and damage.

B. Check.

(1) Check the roller and the associated seat rails for security, cleanliness and freedom from damage.

(2) Check all nuts, bolts and attached components for security, burrs and damaged edges.

(3) Operate the manual control handles and check for positive operation of the associated mechanisms.

(4) Check the security of panels and covers fitted to the trolley.

(5) Check that the overtravel spring-pot plunger, for each of the forward, the rearward and the inter-seat travel limit switches, when depressed into its spring-pot sleeve, returns freely and that the wire securing the locknut for the micro switch operating bolt does not foul the spring-pot sleeve.

R Outboard Seat Rail

R 4. Secondary Trolley Crashlock Pin (Trolley Removed)
R (Ref. Fig. 601)

R A. Equipment and Materials

DESCRIPTION	PART NO.
Micrometer - range 0 - 1 in. (0 25.4 mm)	-
Dial test indicator	-
Cleaning solvent (Ref.20-30-00,	-

DESCRIPTION	PART NO.
No.473)	
'Kimwipe' tissue	-
Vernier calipers - range 0 - 1 in. (0 - 25.4 mm)	-

B. Inspection/Check

(1) Remove the seat and secondary trolley (Ref. 25-11-31, Removal/Installation).

(2) Thoroughly clean the crashlock pin and seat rails with a 'Kimwipe' tissue and cleaning solvent. Dry the components thoroughly using a clean 'Kimwipe' tissue.

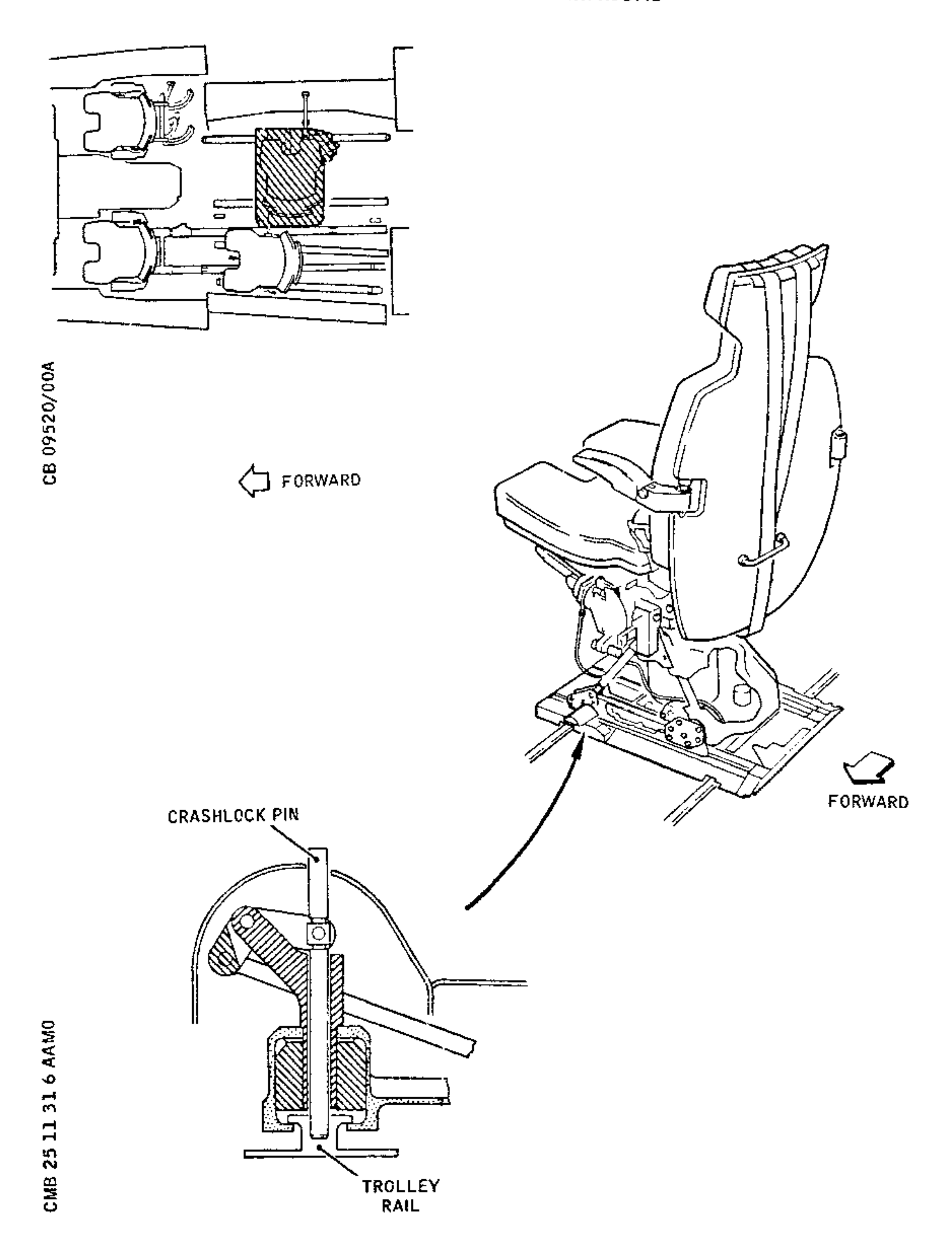
(3) Inspect both outboard and inboard seat rail. If damage is perceptible, measure and assess the degree of damage using a D.T.I. (Ref. Fig. 602).

(4) Check the crashlock pin and the outboard seat rail for cracks and wear in conjunction with Table 601.

Detail and Item No.	Original Mfg Limits				In-Service Wear Limits		
	Dimension ins. (Millimeters)		Assy.Clearance Inch. (Milli.)		Dimension Limits Inch. (Milli.)		Max. Allow. clear in.(mm)
	Min.	Max.	Min.	Max.	Min.	Max.	
Seat rail Hole Dia.	0.2953 (7.50)	0.2962 (7.52)	0.0458 (1.16)	0.0473 (1.20)		0.32 (8.14)	0.0710 (1.80)
Crashlock pin. dia.	0.2489 (6.32)	0.2495 (6.34)				0.224 (5.70)	

TABLE 601

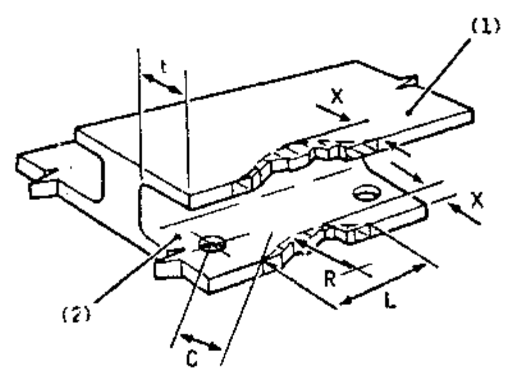
Wear Limits - Crashlock Pin - Outboard Seat Rail (Ref. Fig. 602)



R Third Crew Members Seat - Crashlock Pin and
Figure 601

DAMAGED EDGES

CB 09515/00A



$X = \frac{t}{5}$ MAX. (1)

= 0.098 in (2.5 mm) (2)

L = 20X MIN.

P = 25X MIN.

C = 1.2D

X = DAMAGE DEPTH AFTER BLENDING (2)

= LENGTH OF FLANGE (1) REMOVED BY BLENDING OUT OF DAMAGE

L = DAMAGE LENGTH AFTER BLENDING

R = RADIUS LIMITS OF BLENDED ZONE

C = DISTANCE BETWEEN BLENDED ZONE AND THE CENTRE OF A FASTENER OF DIA. D

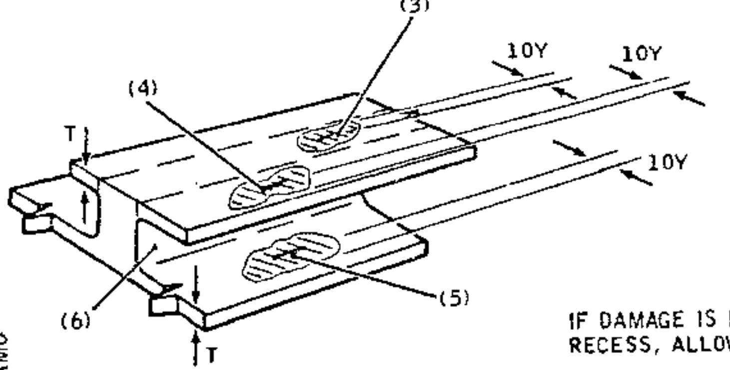
t = TOTAL LENGTH OF FLANGE

BLEND OUT DAMAGE RESPECTING RADIUS R AS SHOWN AT (1)

CRACKS

CRACK DETECT.
NO CRACKS ALLOWED
(BUT EDGE CRACKS TREAT AS DAMAGED EDGES)

SCORE, SCRATCH, ABRASION AND MILD CORROSION



Y MAX.

= 0.039 in (1.0 mm) ON SURFACE (3)

= 0.016 in (0.4 mm) ON SURFACE (4)

= $\frac{T}{8}$ ON SURFACES (5) AND (6)

IF DAMAGE IS IN LINE ON OPPOSITE FACES IN THE RECESS, ALLOWABLE DEPTH Y = CUMULATIVE DAMAGE (6)

NOTE: AFTER BLENDING OUT, AREA MUST BE CRACK DETECTED.

AFFECTED AREA MUST BE CHECKED TO ENSURE THAT ALL TRACES OF CORROSION ARE REMOVED AND AREA REPROTECTED AS REQUIRED.

Y = DAMAGE DEPTH AFTER BLENDING

T = THICKNESS OF DAMAGED WEB

CMB 25 11 31 6 BAM0

R

Permissible Damage Criteria - Seat Rails
Figure 602

R (5) Rectify by replacement of any damaged or worn
R component.

R E. Conclusion

R (1) Refit the secondary trolley and seat (Ref. 25-11-31,
R Removal/Installation).

R (2) Check that the area is clean and remove all tools
R and equipment from the aircraft.

END OF THIS SECTION

NEXT

FIRST SUPERNUMERARY CREW MEMBER'S SEAT - DESCRIPTION AND OPERATION

1. General

The first supernumerary (4 CM) seat is mounted on rails at the rear of the captain's seat in the flight compartment. The seat can be moved forward or rearward on its rails and can be adjusted in height and partly rotated on its base; all adjustments are made manually.

An inertia safety harness is fitted to the seat. When not in use the seat pan is stowed by lifting and folding it against the seat back where it is held in position by the safety harness.

Basically the seat comprises a hinged seat pan and fixed backrest mounted on a telescopic tube assembly, which is supported by tubular members bolted to the roller mounted seat base.

2. Seat Back and Seat Pan (Ref. Fig. 001)

The seatback is secured to the rear of a bracket assembly which is mounted on the top of the inner tube of the telescopic tube assembly. At the base of the seat back a reel assembly is fitted for the inertia safety harness and, at the top, guide members are fitted, through which the harness shoulder straps are passed.

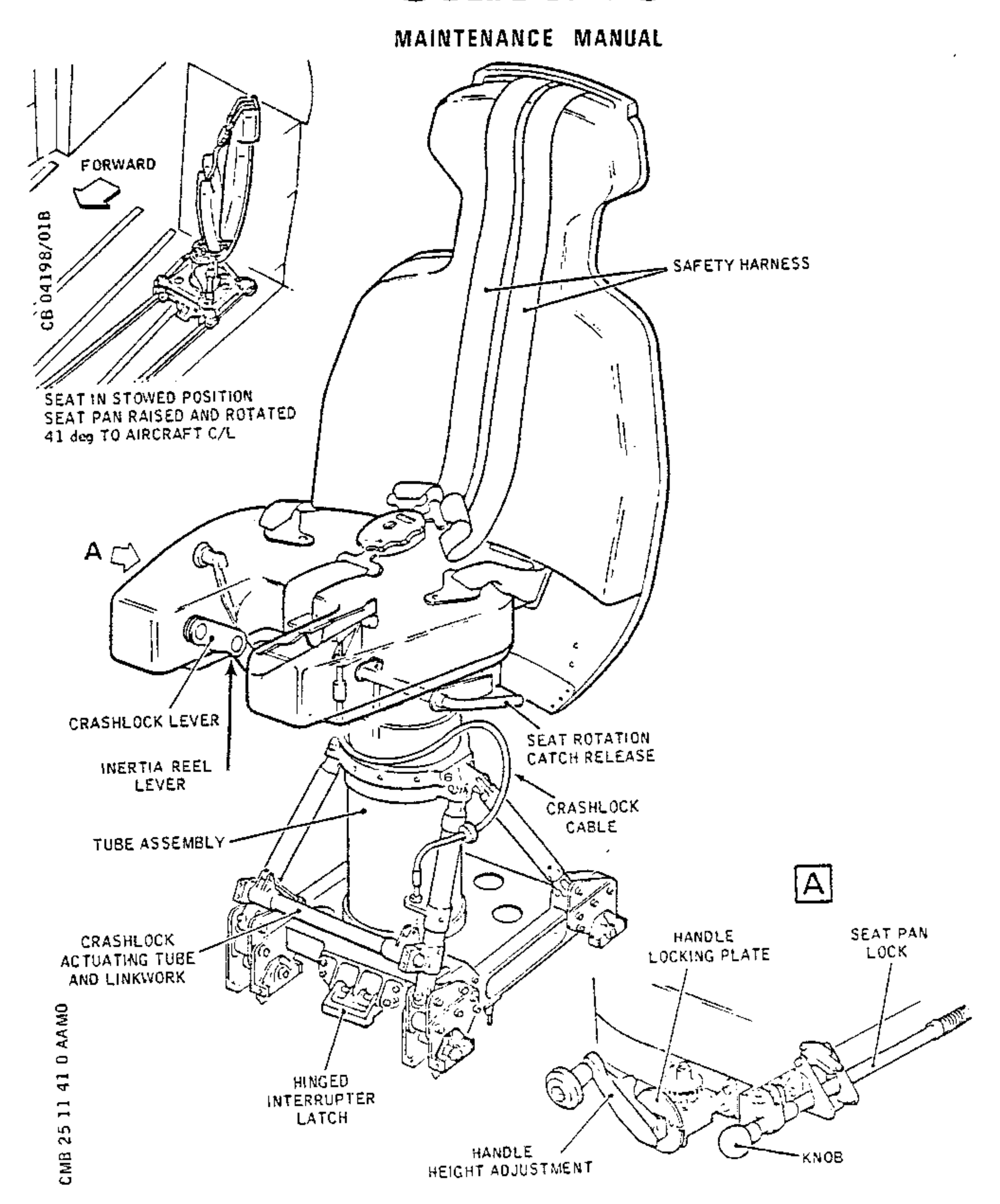
A hinge point at the front of the bracket assembly, to which the seat pan is secured, enables the seat pan to be tilted upward against the seat back when the seat is stowed.

R The seat pan is retained in the horizontal position by a spring
R loaded lock fitted to the bracket assembly.

The seat back and seat pan have removable cushions which are held in place in the respective structures by strips of non-slip (Velcro) material bonded to the structure.

3. Seat Base Structure (Ref. Fig.001 and 002)

Vertical and rotational adjustment of the seat is effected by the telescopic tube assembly of the seat base. The tube assembly comprises an outer support tube and a centre tube accommodating an adjustable inner tube, at the top of which is mounted the bracket assembly holding the seat pan and seat back. The centre tube is keyed to the outer tube which is bolted to the seat base and supported by four tubular struts to the base corners. A screw jack inside the tube assembly



First Supernumerary Seat Assembly
Figure 001

R

provides the means of adjustment of approximately 4.75 in (120.65 mm) height between the seat upper and lower limits.
R The screw-jack is supported in a bearing at the top of the
R inner tube and is rotated by a cranked handle at the right side
R of the seat, through bevel gearing and a chain and sprocket drive.

Rotation of the seat is limited by a spring loaded catch which, protruding through the wall of the inner tube, locates in one of the radially disposed vertical grooves in the inner wall of the centre tube. The catch is disengaged from the slot by operation of a handle, positioned just below the seat pan, on the LH (outboard) side (Ref. Fig. 002).

A torque tube incorporated in the seat base structure, and operated by a lever and cable assembly, mounted in the recess in the forward edge of the seat pan, actuates a linkage mechanism to lift spring loaded crashlock pins which locate in holes in the seat rails.

4. Seat Mounting

The seat base is fitted with four roller assemblies to travel along the seat rails. Claw plates, fitted at each side of the roller assemblies, fit under the rail flanges to retain the seat on the rails.

The seat rails are angled rearward at 4 deg to the centre line of the aircraft and set behind the captain's seat. To prevent injury to the occupant of the supernumerary seat when the captain's seat is motored rearward, a detachable strut is fitted between the two seats.

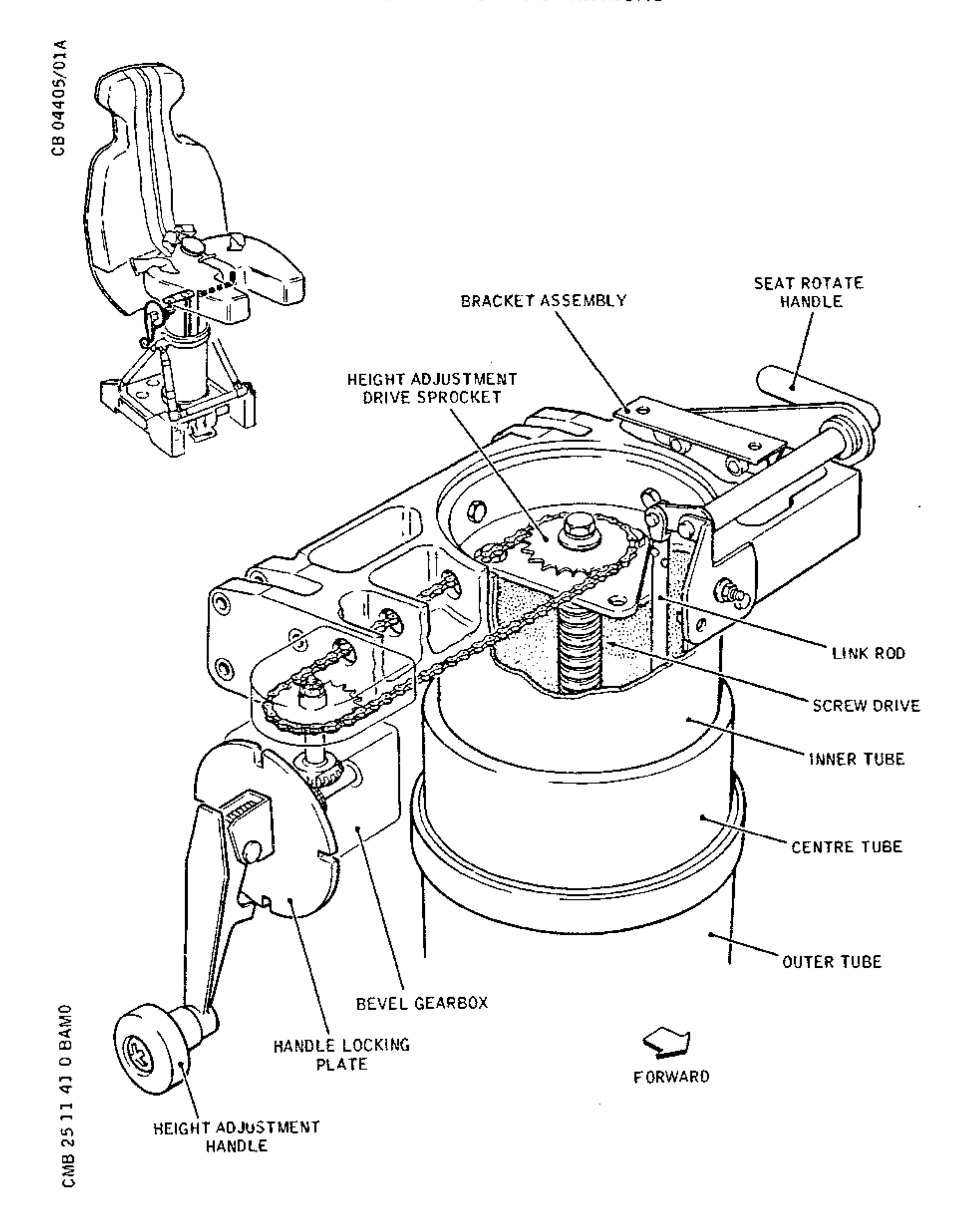
The front part of the strut is located in a shoe on the captain's seat outboard rail, and the rear end of the strut engages with a spring loaded latchplate at the front of the supernumerary seat. Contact between the two seats is prevented by the front end of the strut tripping a switch on the captain's seat to break the motorized tracking circuit of that seat (Ref. 25-11-11, Description and Operation).

5. Operation

A. Tracking Control

To move the seat forward or rearward along its rails, a lever in the recess on the forward edge of the seat pan is pulled up to disengage the crashlock pins, this allows the seat to be moved manually along the rails.

B. Height Control



R Seat Height and Rotation Control Mechanism
Figure 002

The seat can be raised or lowered relative to its base structure by a cranked handle on the right-hand side of the seat. The handle is lifted outward to first disengage it from a locking plate, and then rotated in the required direction to raise or lower the seat. When the desired height is achieved the handle is then re-engaged with the locking plate.

C. Seat Rotation

For normal operation the seat is set with its centre line parallel with its rails. The seat should only be rotated inboard if the occupant, when seated in a fully foward position, requires access to the oxygen mask stowed in the side console.

To rotate the seat, the handle on the LH side of the seat pan is lifted and the seat is rotated manually to the required position. The lever is then released to re-engage the locking mechanism.

D. Safety Harness Control

(1) When the inertia harness control lever on the seat base is set forward, the inertia reel is in the unlocked condition, allowing the harness to be freely withdrawn or retracted into the reel.

With the lever set to the rear position, the inertia reel is in the locked condition thus allowing the harness to be retracted into the reel but preventing any forward movement of the seat occupant.

When the lever is set to the centre position, the reel is in the inertia lock condition; this allows the harness to unwind slowly with gradual forward pressure applied by the seat occupant, but causing it to lock, securely holding the occupant when sudden forward pressure is applied.

(2) The lap belt reel is positive locking and not of the inertia reel type. After withdrawing the strap from the reeled in position it adjusts itself to the seat occupant by automatically taking up the slack one racket tooth at a time. In order to lengthen the strap from any position it is necessary to return it to the fully reeled in position.

E. Stowage

Printed in England

R When installed but not in use the seat is moved to the aft end of its rails. The seat pan is stowed by depressing the knob of the seat pan lock, lifting the seat pan and releasing the knob, then strapped up and rotated to face inboard to take up minimum space in the corner of the flight compartment. Care must be taken to ensure that the seat pan lock is operated whenever the seat pan is moved from or to the horizontal position. The latch plate which engages the interrupter strut is to be lifted and the strut is to be pushed under the seat to the stop. This action extends the rearward range of the Captain's seat (Ref. Fig. 001).

R F. Preparation for Use.

R When the seat is required for use the latch plate which engages the interrupter strut is to be lifted, the strut moved forward and the latch plate re-engaged. The seat is to be unstrapped, the knob of the seat pan lock depressed and the seat pan lowered, then the seat pan lock released. Rotate the seat pan to face forward.

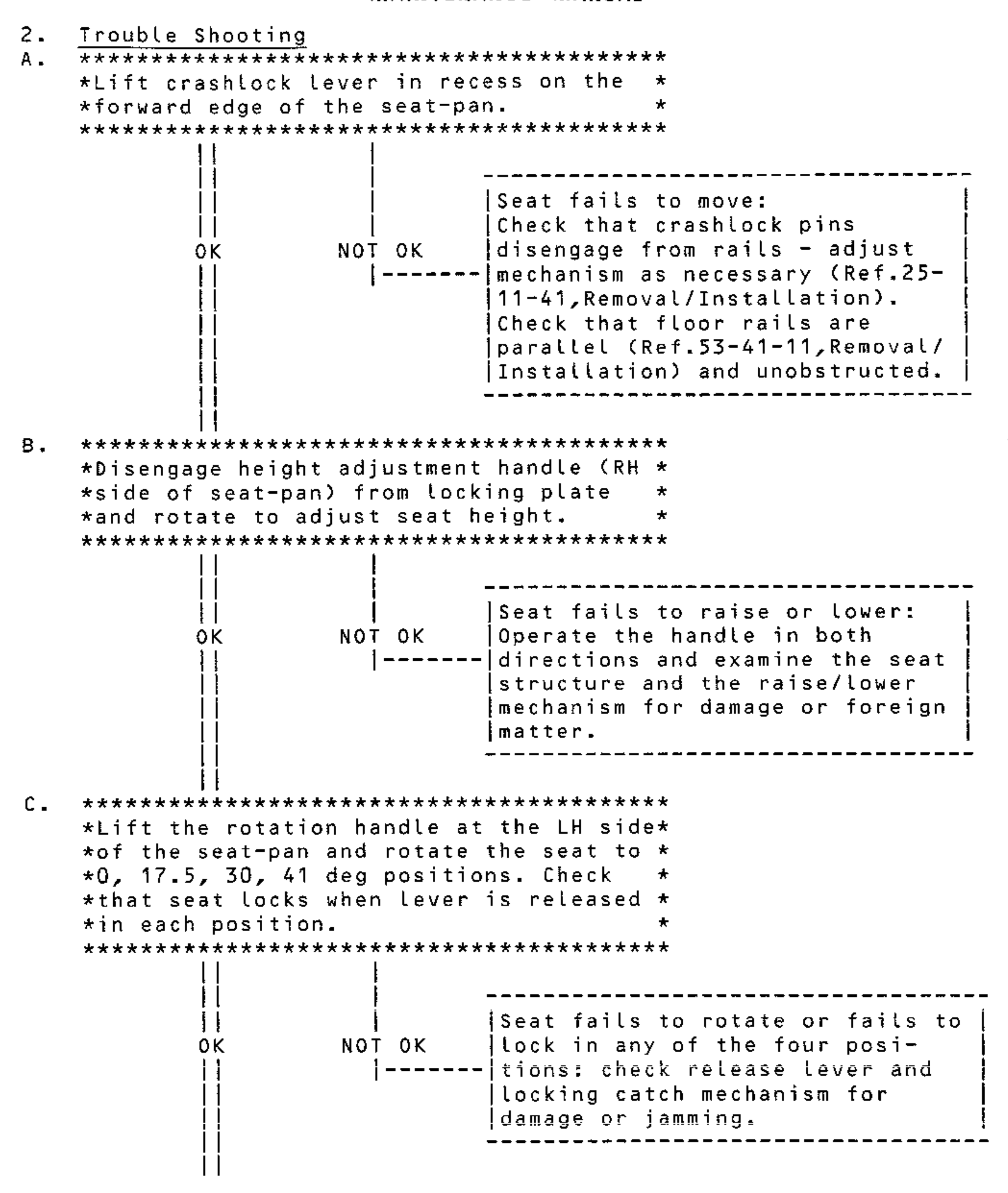
FIRST SUPERNUMERARY CREW MEMBER'S SEAT ASSEMBLY - TROUBLE SHOOTING

1. General

Faults are dealt with on a probability basis and identified as a result of testing.

A defect can be isolated with the aid of the trouble shooting procedures (Ref. para. 2), and traced through OK and NOT OK paths to any rectification action which may be necessary. If a defect occurs, perform the appropriate rectification action, then repeat the operation at which the defect was encountered, to ensure that the operation is OK.

2. Trouble Shooting



RB D. Set inertia harness control lever (RH side of seat-pan base) to the forward position. Release lever, check that it returns to central position, that harness can be slowly withdrawn from reel, that if harness is released it is automatically taken up by reel. Withdraw the strap from reel with sudden jerk- check movement blocked by reel and when released strap makes an audible rattling sound as it winds back onto reel

OK → next step

NOT OK → Lever fails to return to central position, reel fails to release or lock, wind-back after jerk is not accompanied by rattling sound -Check adjustment of control cable or renew reel assembly.

Move control lever to forward position and release it; check that lever returns to central position and strap moves freely in both directions.

OK → next step

NOT OK → Check adjustment of control cable or renew reel assembly.

Pull out part of strap, hold it still, move lever to rear position; check forward movement of strap is blocked and that when released strap winds up making audible rattling sound.

OK

NOT OK → Check adjustment of control cable or renew reel assembly.

```
            ||
            ||
E.  ****************************************
    *Withdraw the lap belt from the stowed  *
    *position in the reel. Relax the tension*
    *until an audible click is heard then   *
    *apply tension once more. Check that    *
    *withdrawal is baulked.                 *
    ****************************************
            ||          |
            ||          |                 -----------------------------------
            ||          |                 |Belt withdraws check other posi-  |
            OK       NOT OK               |tions and if belt still with-     |
            ||          |-------          |draws - renew the reel assembly   |
            ||                            -----------------------------------
            ||
    ****************************************
    *Release belt from baulked position     *
    *Check that belt is retracted           *
    *automatically into the reel            *
    ****************************************
                        |
                        |                 -----------------------------------
                     NOT OK               |Belt remains withdrawn from reel  |
                        |-------          |     Renew the reel assembly      |
                                          -----------------------------------
```

FIRST SUPERNUMERARY CREW MEMBER'S SEAT - REMOVAL/INSTALLATION

R CAUTION: ENSURE THAT PROTRUSIONS UNDER THE SEAT ARE NOT DAMAGED
R DURING REMOVAL AND INSTALLATION.
R

1. General

The seat is situated on the left side of the flight compartment and is mounted on rails along which forward and rearward movement of the seat is manually controlled. Roller assemblies at the base of the seat bear on the rail top surface; claw plates are fitted at either side of the rollers and are shaped to fit under the rail flanges.

2. First Supernumerary Seat

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque screwdriver, 0-15 lbf in (0-0.170 mdaN) range	-
Torque spanner, 0-220 lbf in (0-2.486 mdaN) range	-
Seat stand	E9225010000
R R R Non-corrodible wire 0.028 in (0.71 mm) dia.	-

B. Prepare to Remove Seat

(1) Move the captain's seat fully forward (Ref. 25-11-11).

(2) Place the supernumerary seat protective stand close to the seat.

C. Remove Seat (Ref. Fig. 401)

(1) Lift the crashlock release lever to disengage the seat crashlock pins from the seat rail and move the seat forward as far as the interrupter strut will allow.

(2) Lift the spring-loaded latch and push the strut aft under the seat base until it is clear.

(3) Remove the stop at the forward end of the outboard seat rail.

(4) Lift the crashlock release lever and move the seat forward to the end of the rails. Disengage the seat from the rails and lift the seat onto its stand.

D. Prepare to Install Seat

(1) Move the captain's seat to its fully forward position.

(2) Move the interrupter strut (Ref. 25-11-00) along its rail until it is against the rail rear end stop.

(3) Slacken the locknuts at the eccentric spindle of each mounting roller assembly and rotate each spindle until the roller is at its maximum lift position; secure the rollers temporarily in this position by tightening the locknuts.

E. Install Seat

(1) With the seat removed from its stand, position it on the floor between the Captain's seat and the forward end of the 1st Supernumerary seat rails.

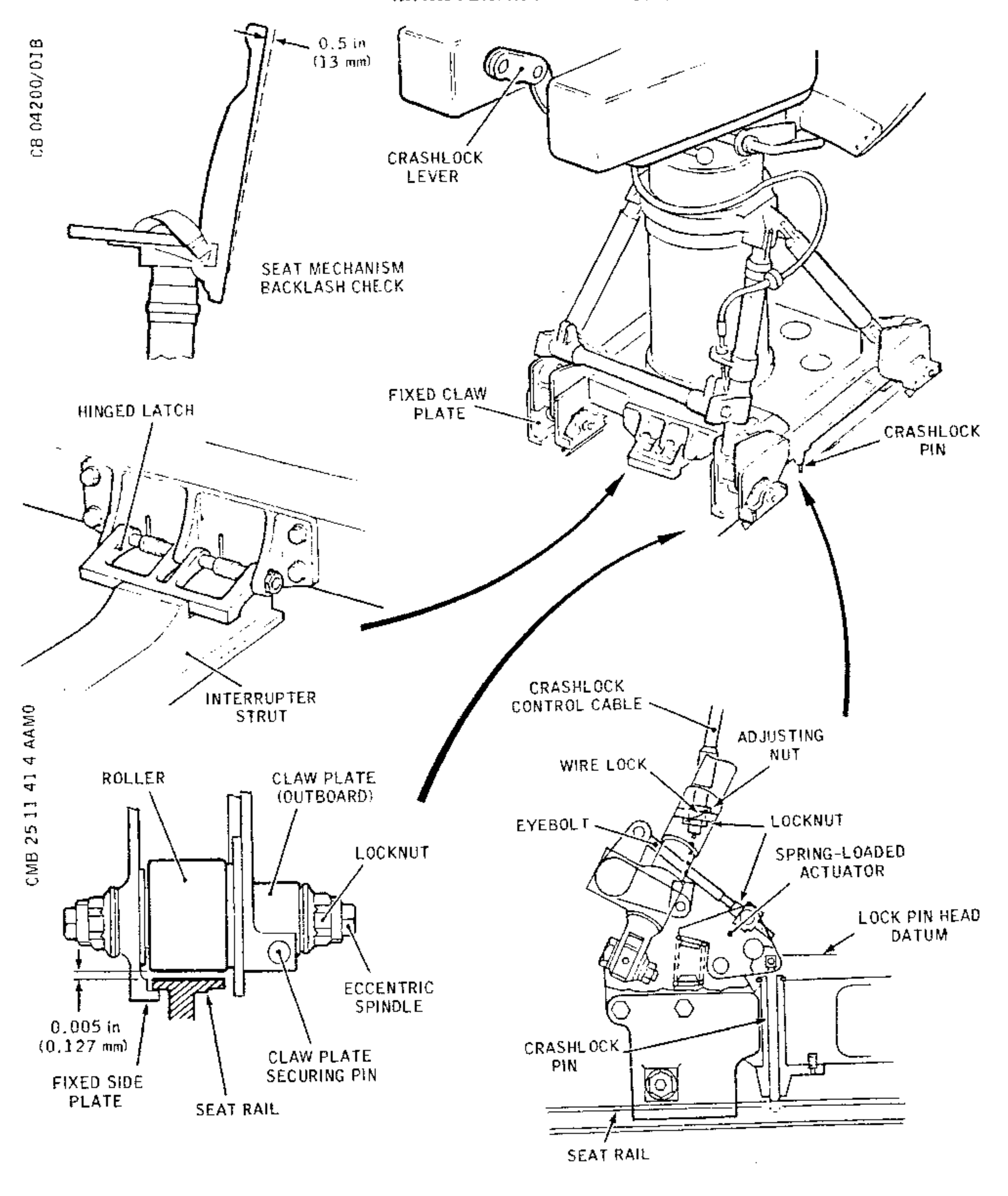
(2) Lift the crashlock release handle and carefully ease the seat aft, engaging first the rear and then the forward claws, at the base of the seat, onto the rail flanges. Move the seat as far as possible and lower the crashlock release handle.

(3) Fit the stops to the forward end of the outboard seat rails.

(4) Lift the spring-loaded latch on the forward face of the seat base plate and slide the interrupter strut forward under the seat until it is clear.

R (5) Set the seat clearances (Ref. Fig. 401):
R Before SB 25-025 For A/C 003-008

R (a) Wedge the retention claws independently at the
R two forward and the outboard rear axle positions
R to contact the rail and adjust the eccentric
R spindle to lightly grip a 0.005 in (0.127 mm)
R feeler gauge between the roller and the top face
R of the rail. Tighten the locknut at the
R completion of each setting.
R



First Supernumerary Seat Installation
Figure 401

R

(b) Check that the seat can be moved freely along the length of its rails; repeat operation (a) as necessary to overcome high spots on the rails.

(c) Lower the rear inboard roller on its eccentric spindle to just contact the rail at its highest point.

(d) Torque tighten the spindle locknuts to 30 lbf in (0.339 mdaN).

After SB 25-025 For A/C 001-007,

(e) Wedge the retention claws independently at the two rear and the one forward outboard axle positions to contact the rail and adjust the eccentric spindle to lightly grip a 0.005 in (0.127 mm) feeler gauge between the roller and the top face of the rail. Tighten the locknut at the completion of each setting.

(f) Check that the seat can be moved freely along the length of its rails; repeat operation (a) as necessary to overcome high spots on the rails.

(g) Lower the forward inboard roller on its eccentric spindle to just contact the rail at its highest point.

(h) Torque tighten the fixed side plate side spindle locknuts to between 60 and 70 lbf in (0.678 and 0.791 mdaN) and the claw side spindle locknuts to between 200 and 215 lbf in (2.26 and 2.429 mdaN).

(6) Position the seat so that, after releasing the crash-lock lever, the lockpins remain disengaged i.e., resting on the top surface of the rails.

(7) Using slip gauges and a straight-edge measure the dimension between the top surface of the seat base side beam and the head of the lockpin at each side of the seat base (Ref. Fig. 401).

(8) Adjust the locknuts on the eyebolts of the spring-loaded actuators to a mean setting between the limits of available adjustment.

(9) Move the seat to a position where the lockpins engage with the holes in the rails.

R (10) Adjust the length of the crashlock control cable to obtain a dimension, measured with the slip gauges and straight-edge, between the top surface of the side beam and the head of the lockpin, which is equal R to the dimension found in operation (7) less 0.25 in (6.35 mm).

NOTE: If the above dimensions can not be obtained by adjustment of the cable length only, additional adjustment is to be made at the eyebolt.

R (11) Tighten the adjustment locknuts on the eyebolts and R operating cable and lock with wire.

R

R (12) With the seat facing forward raise the seat fully; R check that the total backlash of the seat mechanism, R measured at the top of the seat back, does not exceed R 0.50 in (12.7 mm) (Ref. Fig. 401).

R (13) Fit the seat pedestal covers and torque-load the securing screws to between 10 and 12 lbf in (0.113 and 0.135 mdaN).

R (14) Functionally test the seat (Ref. 25-11-41, Adjustment/ Test).

R (15) Attach the interrupter strut to the latch at the front of the seat.

FIRST SUPERNUMERARY CREW MEMBER'S SEAT - ADJUSTMENT/TEST

1. General

The first supernumerary crew member's seat can be manually operated to adjust seat height and forward facing angle. It can also be moved manually along its tracking rails which
R extend rearward aft of the captain's seat and, when not in
R use, the seat pan can be tilted upwards.

This topic contains instructions for testing the various seat functions (Ref. Fig. 501).

2. Functional Test - Seat Controls

R A. Seat Forward/Aft Movement

(1) Operate the crashlock release lever to lift the lock-pins and check that the seat can be moved freely along its rails.

(2) Check the positive engagement of the lockpins at various positions of the seat along its rails. For adjustment of the crashlocks and seat roller
R mechanisms refer to 25-11-41, Removal/Installation.

B. Rotation and Height Control Mechanism

(1) Rotate the seat on its base through its full angular range by lifting the limit catch actuating lever and turning the seat manually. Engage the limit catch at each of the four (0 deg, 17.5 deg, 30 deg, 41 deg) settings.

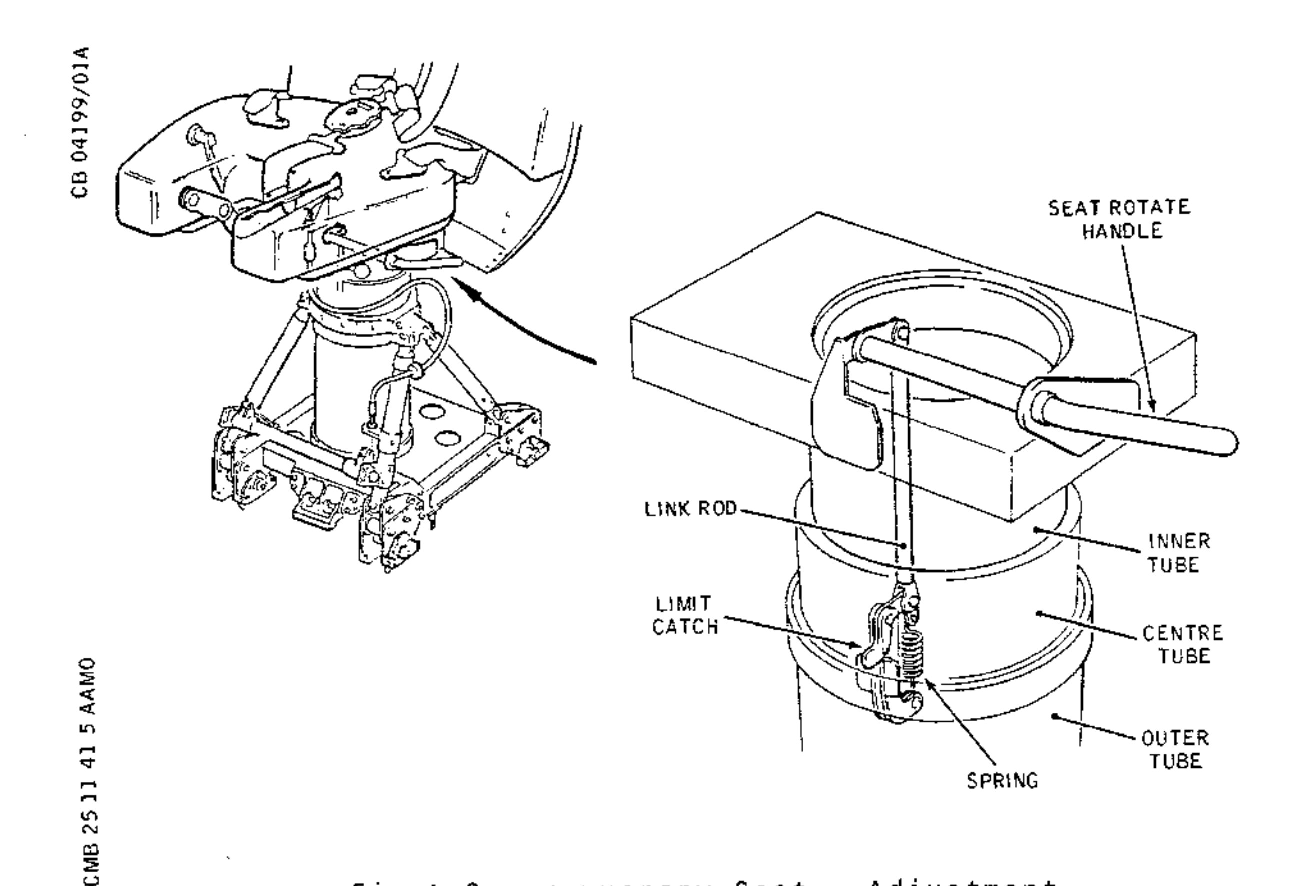
(2) Raise the seat vertically by means of the cranked height control handle until it is at its upper limit, then repeat operation (1).

(3) Check the rotation of the seat, repeating operation (1) at intermediate height settings ensuring that all required settings are obtainable and can be maintained.

R C. Seat Pan Lock

R (1) Depress the knob of the seat pan lock to release
R the seat pan and check that the seat pan can be
R hinged upward to the seat stowed position. Return
R the seat pan to the horizontal position and release
R the knob, then check that the seat pan is firmly
R locked.

R CAUTION: FAILURE TO ENSURE THAT THE SEAT PAN
R LOCK IS ENGAGED COULD RESULT IN DAMAGE
R TO THE SEAT PAN.



First Supernumerary Seat - Adjustment
Figure 501

R D. Safety Harness

(1) Sit in the seat and fasten the safety harness in the usual position on the body.

(2) Move the inertia harness control lever to the rear (automatic locking release) position to ensure reel mechanism is unlocked, then release the lever which should automatically return to the centre position.

(3) Check that with the lever in the centre position it is possible to slowly withdraw the harness strap from the reel and, that when tension on the strap is released, it is retracted into the reel.

(4) Attempt to withdraw the strap with a sudden jerk and ensure that withdrawal is baulked by action of the

inertia lock within the reel.

(5) Move the control lever to the rear position again, then release it to return to the centre position. Check that the harness moves freely in either direction. Pull the strap partly out and, retaining the strap, move the control lever to the forward (manual locking position. Check that reel out of the strap is blocked but that it reels in automatically when released.

<u>NOTE</u>: With the control lever set in either the forward or centre positions, reel in of the harness should be accompanied by a distinctive audible rattle.

(6) Disconnect the harness. Withdraw one lap strap from its reel then, relaxing the tension, check that it automatically reels in one ratchet tooth at a time. Check at each of these stages it is locked to prevent reel-out; reel-out being possible only when the full reel-in position is reached. Repeat the test on the other lap strap.

FIRST SUPERNUMERARY CREW MEMBER'S SEAT - INSPECTION/CHECK

1. General (Ref. Fig. 601)

The first supernumerary crew member's seat is mounted on rails at the left side of the flight compartment and at the rear of the first pilot's seat. All seat functions are by manual operation.

In the following inspection/check:
- paragraphs 2.B and C are inspections with the seat installed.
- paragraphs 2.D with the seat removed.

2. Inspection/Check

A. Equipment and Materials

DESCRIPTION	PART NO.
Micrometer - range 0 - 1 in. (0 - 25,4 mm)	-
Dial test indicator	-
Cleaning solvent (Ref. 20-30-00, No.473)	-
'Kimwipe'tissue	-
Vernier calipers - range 0 - 1 in (0 - 25,4 mm)	-

B. Inspect Seat Installed

(1) Inspect the inertia safety harness attachments for damage by distortion, cracks or corrosion.

(2) Inspect the harness webbing for contamination (by grease and oil), fraying, opening of weave or loose stitching.

(3) Inspect the seat back and seat pan cushions for contamination by oil or grease.

(4) Visually inspect the seat structure and the support structure for burrs, cracks and damage.

C. Check Seat Installed

(1) Check the roller mountings and seat tracking rails for security, cleanliness and freedom from damage.

(2) Check all nuts, bolts and attachment for security.

(3) Check that there are no burrs, cuts or damaged areas or edges on the seat structure or attachments.

(4) Operate the control mechanism for the seat functions and check range of seat operations and for positive locking of controls.

D. Inspection - Seat Removed

(1) Remove the seat (Ref. 25-11-41, Removal/Installation)

(2) Thoroughly clean the crashlock pins and seat rails with a clean 'Kimwipe' tissue and cleaning solvent. Dry the components thoroughly using a clean 'Kimwipe' tissue.

(3) Inspect both inboard and outboard seat rails for damage. If damage is perceptible measure and assess the degree of damage using a D.T.I. (Ref. Fig. 602).

(4) Inspect the crashlock pins and both inboard and outboard seat rails for cracks and wear in conjuntion with Table 601.

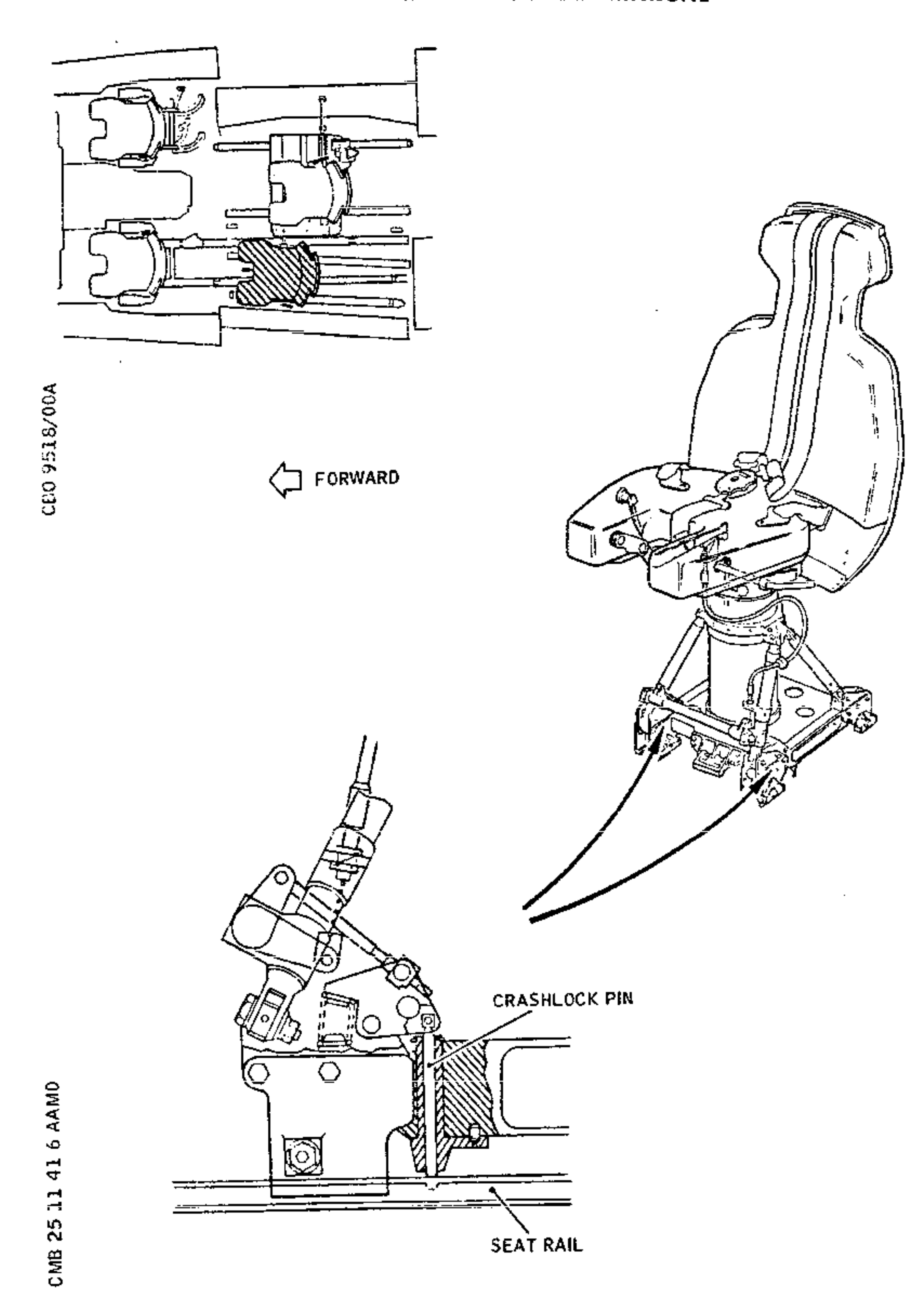
Detail and Item No.	Original Mfg Limits				In-Service Wear Limits		
	Dimension ins. (Millimeters)		Assy.Clearance Inch. (Milli.)		Dimension Limits Inch (Milli.)		Max. Allow. clear in.(mm)
	Min.	Max.	Min.	Max.	Min.	Max.	
Seat rails hole dia.	0.2953 (7,50)	0.2962 (7,52)	0.0458 (1,16)	0.0473 (1.20)		0.32 (8,14)	0.0710 (1,80)
Crashlock pins dia.	0.2489 (6,32)	0.2495 (6,34)				0.224 (5,70)	

Wear Limits - Crashlock Pins Seat Rails
Table 601

(5) Rectify by replacement of any damaged or worn component.

E. Conclusion

(1) Refit the seat (Ref. 25-11-41, Removal/Installation).

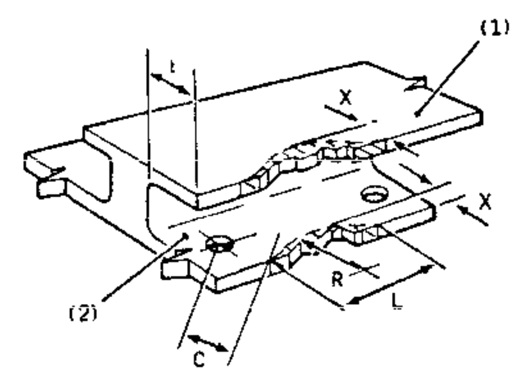


First Super Numerary Seat - Crash Lock Pins
and Both Inboard and Outboard Seat Rails
Figure 601

R

DAMAGED EDGES

CB 09515/00A



$X = \frac{t}{5}$ MAX. (1)

= 0.098 in (2.5 mm) (2)

L = 20X MIN.

R = 25X MIN.

C = 1.2D

X = DAMAGE DEPTH AFTER BLENDING (2)
  = LENGTH OF FLANGE (1) REMOVED BY BLENDING OUT OF DAMAGE

L = DAMAGE LENGTH AFTER BLENDING

R = RADIUS LIMITS OF BLENDED ZONE

C = DISTANCE BETWEEN BLENDED ZONE AND THE CENTRE OF A FASTENER OF DIA. D

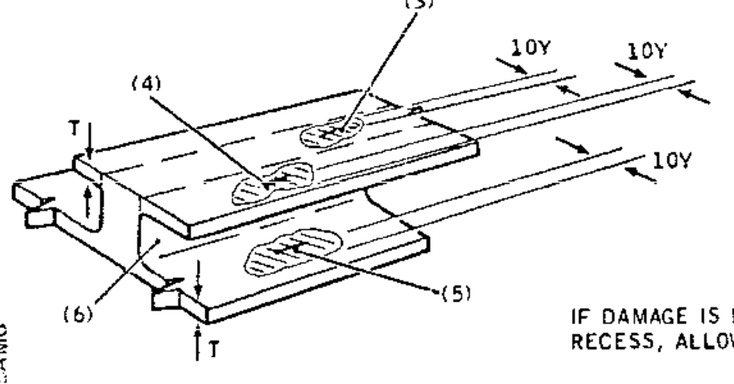
t = TOTAL LENGTH OF FLANGE

BLEND OUT DAMAGE RESPECTING RADIUS R AS SHOWN AT (1)

CRACKS

CRACK DETECT.
NO CRACKS ALLOWED
(BUT EDGE CRACKS TREAT AS DAMAGED EDGES)

SCORE, SCRATCH, ABRASION AND MILD CORROSION



Y MAX.

= 0.039 in (1.0 mm) ON SURFACE (3)

= 0.016 in (0.4 mm) ON SURFACE (4)

$= \frac{T}{8}$ ON SURFACES (5) AND (6)

IF DAMAGE IS IN LINE ON OPPOSITE FACES IN THE RECESS, ALLOWABLE DEPTH Y = CUMULATIVE DAMAGE (6)

NOTE: AFTER BLENDING OUT, AREA MUST BE CRACK DETECTED.

AFFECTED AREA MUST BE CHECKED TO ENSURE THAT ALL TRACES OF CORROSION ARE REMOVED AND AREA REPROTECTED AS REQUIRED.

Y = DAMAGE DEPTH AFTER BLENDING

T = THICKNESS OF DAMAGED WEB

CMB 25 11 41 6 3AMO

R

Permissible Damage Criteria - Seat Rails
Figure 602

(2) Check that the area is clean and remove all tools and equipment from the aircraft.

SECOND SUPERNUMERARY CREW MEMBER'S SEAT - DESCRIPTION AND OPERATION

1. General (Ref. Fig. 001)

The second supernumerary crew member's (5 CM) seat provides seating accomodation for a fifth crew member on the flight deck. The seat is situated in the flight compartment (zone 123) and is secured by a single pivot attachment to the right-hand equipment racking, and supported on the compartment floor by a collapsible leg assembly.

When not in use, the seat back is pivoted rearward and the leg assembly folded under the seat base allowing the seat to be stowed against the racking where it is held by a spring catch.

2. Description

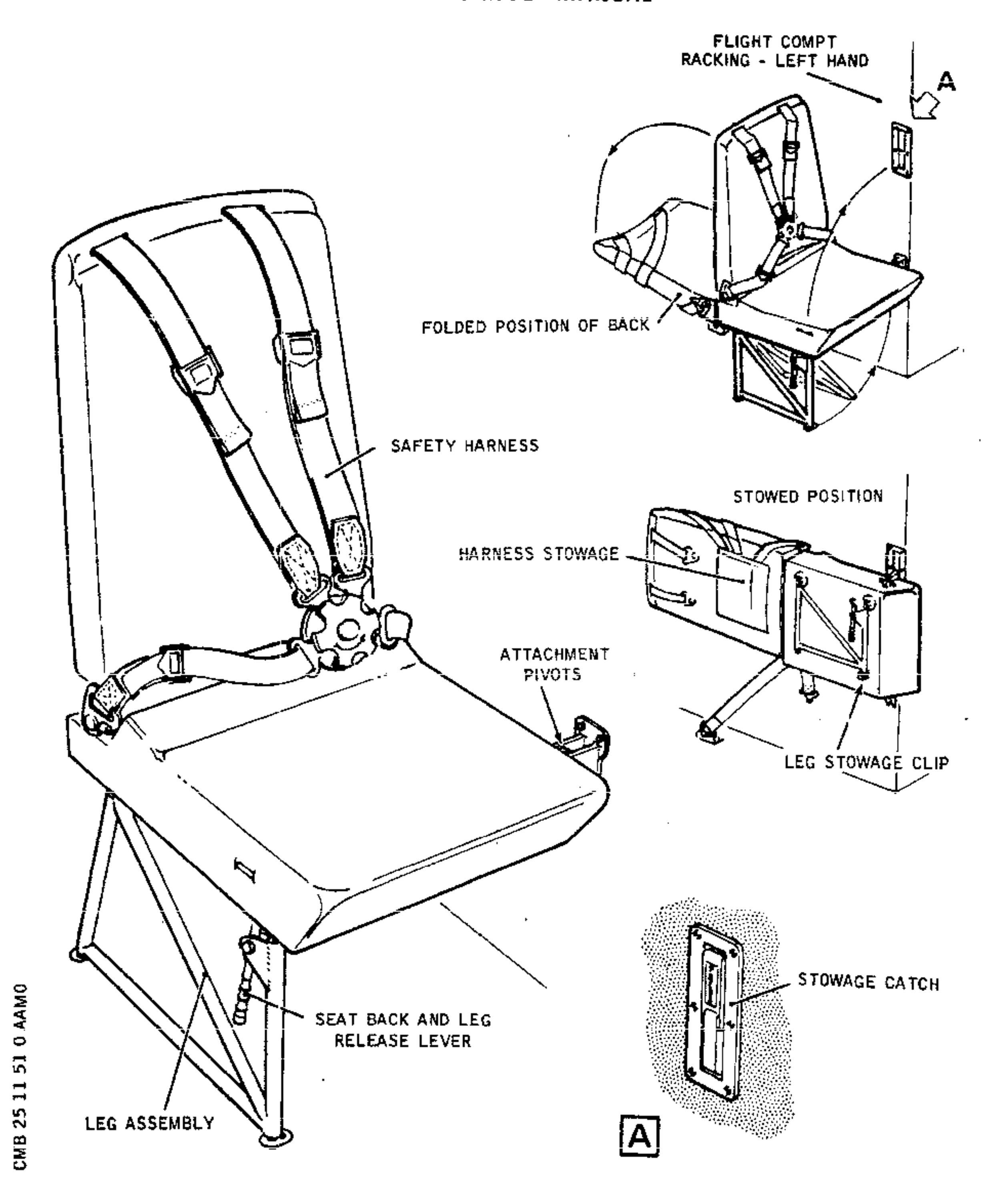
Basically the seat assembly comprises a hinged seat back and a seat pan to which a double side leg is attached by two pivot bolts. A lever, attached to a pivot on the front leg controls the locking mechanism of the seat back and side leg.

Two frames and four ribs form the box-section structure of the seat pan which is enveloped by shaped upper and lower skins. Two removable panels in the lower skin provide access to the seat locking mechanism.

The seat back and seat pan are separately upholstered; an elasticated pocket in the rear of the seat back upholstery provides stowage for the ends of the seat safety harness which is anchored by spring-loaded clips to the compartment floor, and by similar clips to each side of the seat.

3. Operation

Release of the seat back lock is effected by the seat lever which, when operated, partially rotates a transverse tube held in bearings at each side of the seat structure. A push-pull rod, actuated by the transverse tube and operating through a quadrant and rod assembly, retracts the seat back locking pins to allow the seat back to be pivoted. Simultaneously, a claw extension on the operating lever lifts a spring loaded locking pin housed inside the front leg extension and permits the leg assembly to be folded inward. When the seat is
R in use the end of the locking pin locates in a bushed bracket
R fitting in the floor; with the seat folded the locking pin
R engages in a stowage fitting in the seat base.



- Second Supernumerary Crew Member's Seat
Figure 001

SECOND SUPERNUMERARY CREW MEMBER'S SEAT - REMOVAL/INSTALLATION

1. General

To obtain access to the seat attachment bolt the seat is lowered to the 'in use' position. Prior to removal of the seat the safety harness assembly is to be disconnected from the seat and the flight compartment floor and stored.

2. Second Supernumerary Crew Member's Seat

A. Equipment and Materials

R
R
R
R
R
R

DESCRIPTION	PART NO.
Grease, Aeroshell 16 (Ref. 20-30-00, No. 51)	-

B. Remove Seat (Ref. Fig. 401)

(1) Put the seat in the 'in use' position.

(a) Operate the seat release lever to free the leg locking pin from its stowage location under the seat base.

(b) Support the seat and press the seat release catch on the left hand racking of the compartment; lower the seat, simultaneously guiding the leg extensions to the floor receptacles and engaging the locking pin of the front leg extension.

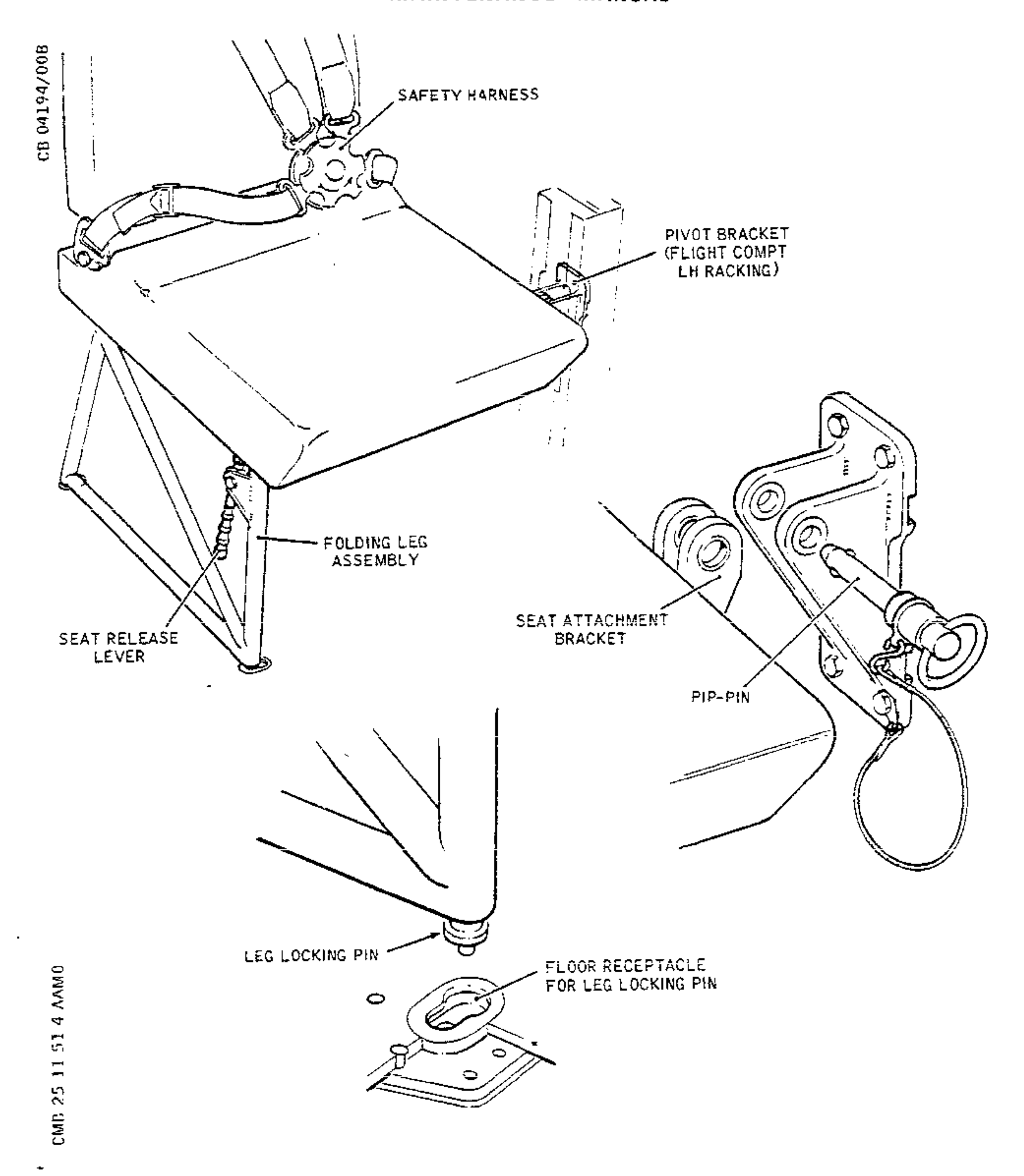
(c) Operate the lever again to raise and lock the seat back.

R (2) Remove the pip pin at the seat attachment brackets.

(3) Free the seat leg extensions from their receptacles in the compartment floor and remove the seat. To facilitate handling after removal, operate the seat lever to lower the seat back and to fold the side leg under the seat base.

C. Install Seat (Ref. Fig. 401)

(1) Operate the seat release lever to lower the leg and to lift the seat back to the upright position.



- Second Supernumerary Seat Installation
Figure 401

R R (2) Engage the seat attachment bracket with the bracket on the compartment left hand racking and fit the pip pin. Lubricate the pip pin before assembly with grease (Aeroshell 16).

(3) Guide the seat leg extensions into their receptacles in the compartment floor and engage the locking pin of the front leg extension in the receptacle keyhole fitting.

R (4) Assemble the safety harness to the seat and secure it to the harness attachment plates on the seat; stow the loose ends of the harness in the elasticated pocket on the back of the seat.

R (5) Put the seat in the stowed position:

(a) Operate the seat lever and disengage the seat leg from the floor fittings; lower the seat back and fold the leg under the seat base engaging the leg locking pin in the stowage fitting.

R (b) Press the stowage catch release to open the catch on the left hand racking and, lifting the seat to the stowed position, engage the stowage fitting on the seat base in the catch then release the catch.

SECOND SUPERNUMERARY CREW MEMBER'S SEAT - ADJUSTMENT/TEST

1. General

The folding leg assembly and fold-flat seat back can be moved manually after operation of a lever on the inboard side of the seat; the lever actuates simultaneously the seat back and leg locking pins. Access to the locking mechanism is facilitated by removable panels in the seat base.

2. Adjustment/Test

A. Equipment and Materials

	DESCRIPTION	PART NO.
R R R	Torque spanner, 0-30 lbf in (0 - 0.339 mdaN) range	-

B. Adjust (Ref. Fig. 501)

(1) Remove the rear panel in the seat base.

(2) Disconnect the two actuating rods to the pin housings at each side of the seat.

(3) Slacken the locknuts on the end fittings to the quadrant.

(4) Extend or shorten the rods to obtain 0.83 in (21 mm) at dimension X, (Ref. Fig. 501). Ensure that, after adjustment the screwed end of the rod extends beyond the safety-hole in the rod end fitting.

(5) Connect rods to the locking pins and secure with clevis pin, washer and split pin.

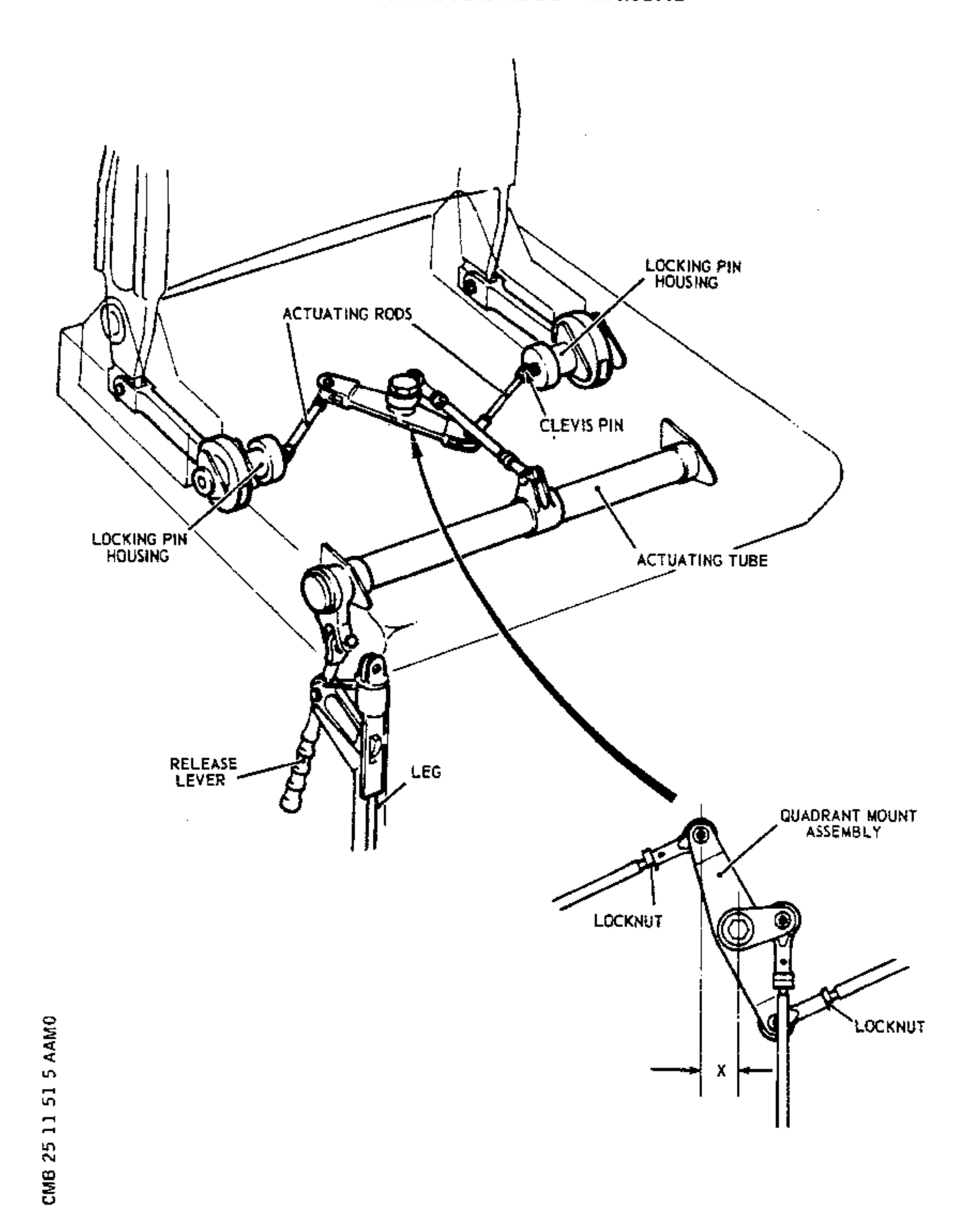
(6) Torque-load the locknut on the rod end fittings to between 25 and 30 lbf in (0.282 and 0.339 mdaN).

(7) Test as detailed in para. C.

(8) Refit the panel to the seat base.

C. Test

(1) Operate the seat release (Ref. Fig. 501) and check



- Second Supernumerary Crew Member's Seat
Figure 501

that the locking pin at the bottom of the front vertical leg member disengages the locating fitting on the flight compartment floor, and simultaneously, the seat back pivot lock is released. Adjust as necessary (Ref. para. B).

(2) Lift the seat, simultaneously folding the leg assembly and moving the seat back to the horizontal position. Check that the leg assembly engages securely with its stowage catch on the underside of the seat and that the stowage catch on the racking of the flight compartment retains the seat securely in the stowed position.

SECOND SUPERNUMERARY CREW MEMBER'S SEAT - INSPECTION/CHECK

1. General

The seat, when stowed, folds flat against the equipment racking in the flight compartment (Zone 123) where it is held in place by a spring catch. When required for use, it is lowered and is supported by a folding side leg assembly. The side leg and seat back are manually positioned; locking and release is effected by operation of a lever on the seat.

2. Inspection/Check

A. Inspection

R B (1) Inspect the inertia safety harness attachments for cracks, distortion, corrosion and other damage.

R B (2) Inspect the harness webbing for opening of weave, fraying, security of stitching and contamination (by grease, oil etc.).

(3) Visually inspect the seat structure for cracks, burrs and damage.

B. Check

(1) Check the stowage catch on the compartment racking for cleanliness and freedom of movement.

(2) Check that the bushed bracket fittings in the compartment floor are clean and undamaged.

NOTE: Debris traps are installed in the bracket fittings.

(3) Check that there are no exposed edges of the seat structure or damaged attachment parts.

(4) Check the operation of the seat lever for smooth action and effectiveness of locking.

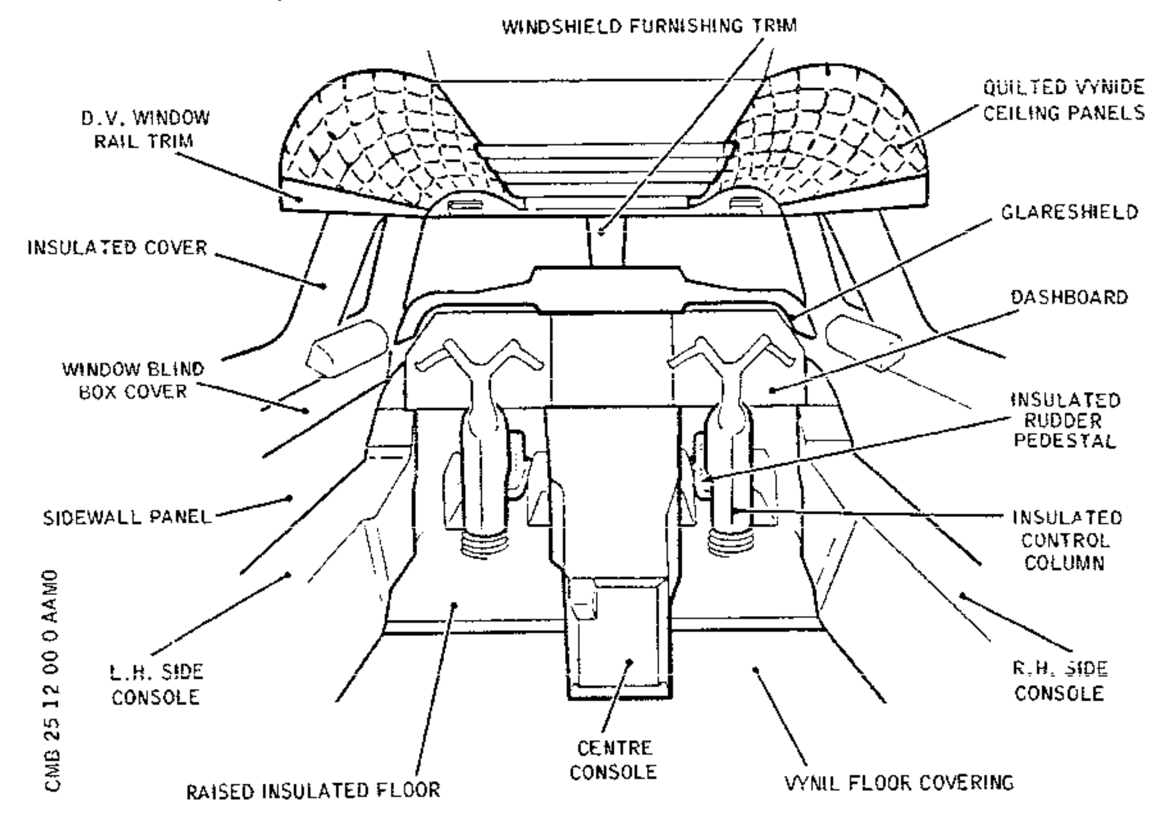
(5) Ensure that the seat deployment placard is correctly attached to the sidewall panelling (Ref.11-33-00, Description, para 1.F).

FLIGHT COMPARTMENT LINING - DESCRIPTION AND OPERATION

1. General (Ref. Fig. 001)

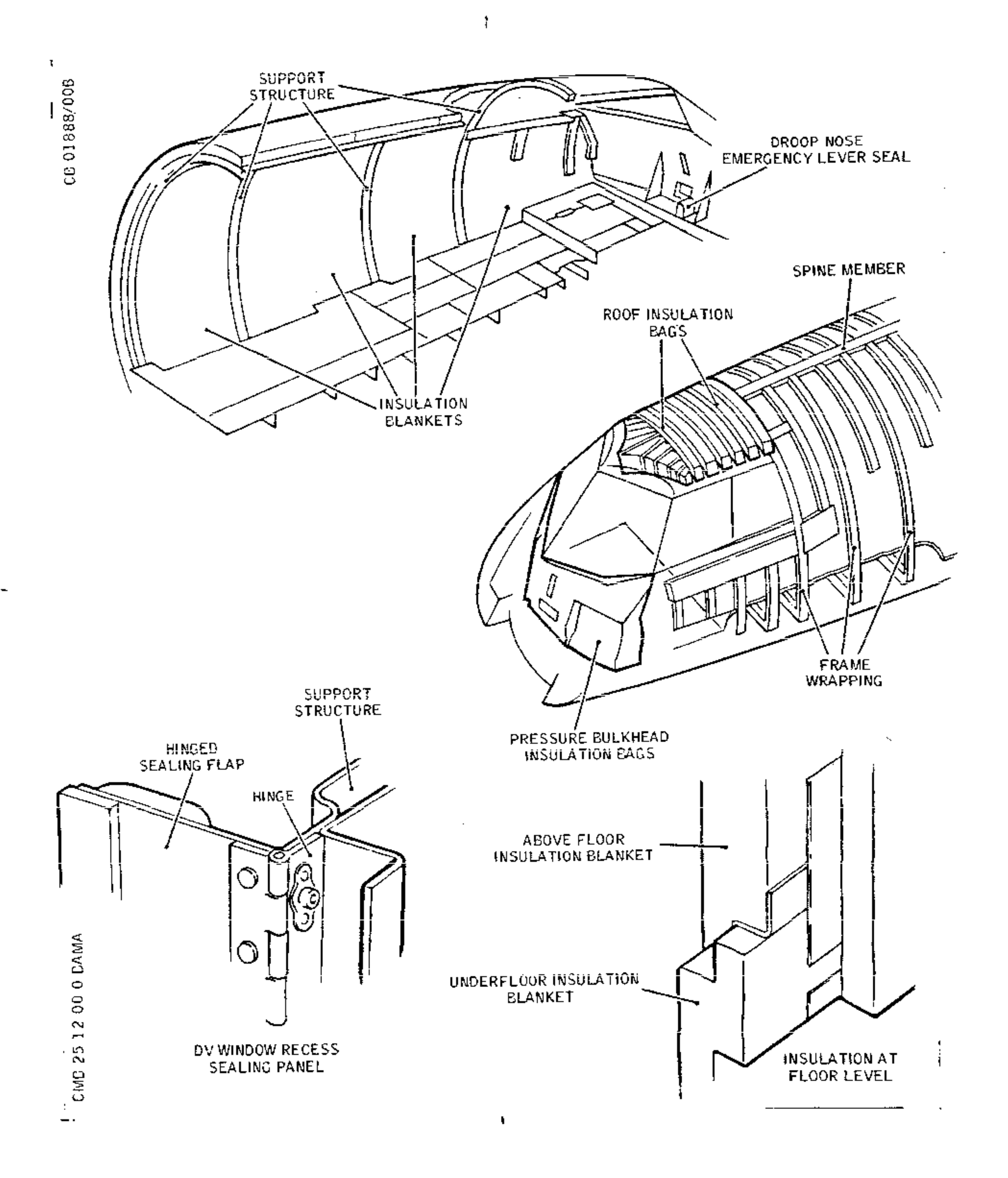
The lining provides thermal insulation, sound proofing and interior furnishing trim above floor level, forward of the flight compartment door.
(Ref. Fig.002 and 003)
The insulation material is contained between the fuselage skin and the furnishing trim, and attached to a support structure which is sandwiched between the fuselage frame and the furnishing trim. The trim consists of ceiling and sidewall panels, with glass fibre sills, fairings and insulated covers surrounding the windshield and windows.

R The flooring is vinyl clad, with the exception of the raised insulated floor on which are situated the control columns and rudder pedestals both fitted with insulated covers.

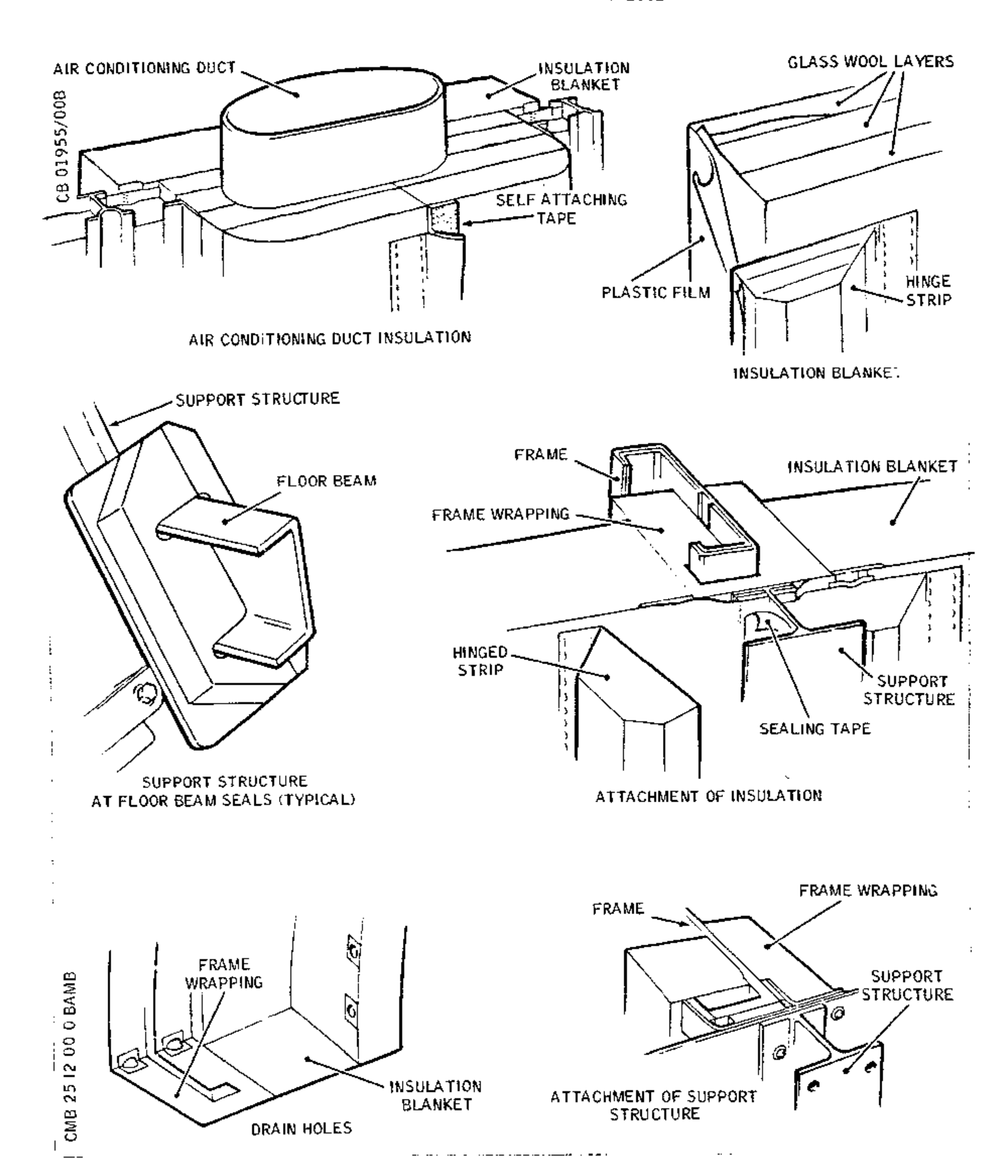


- Flight Compartment Furnishings
Figure 001

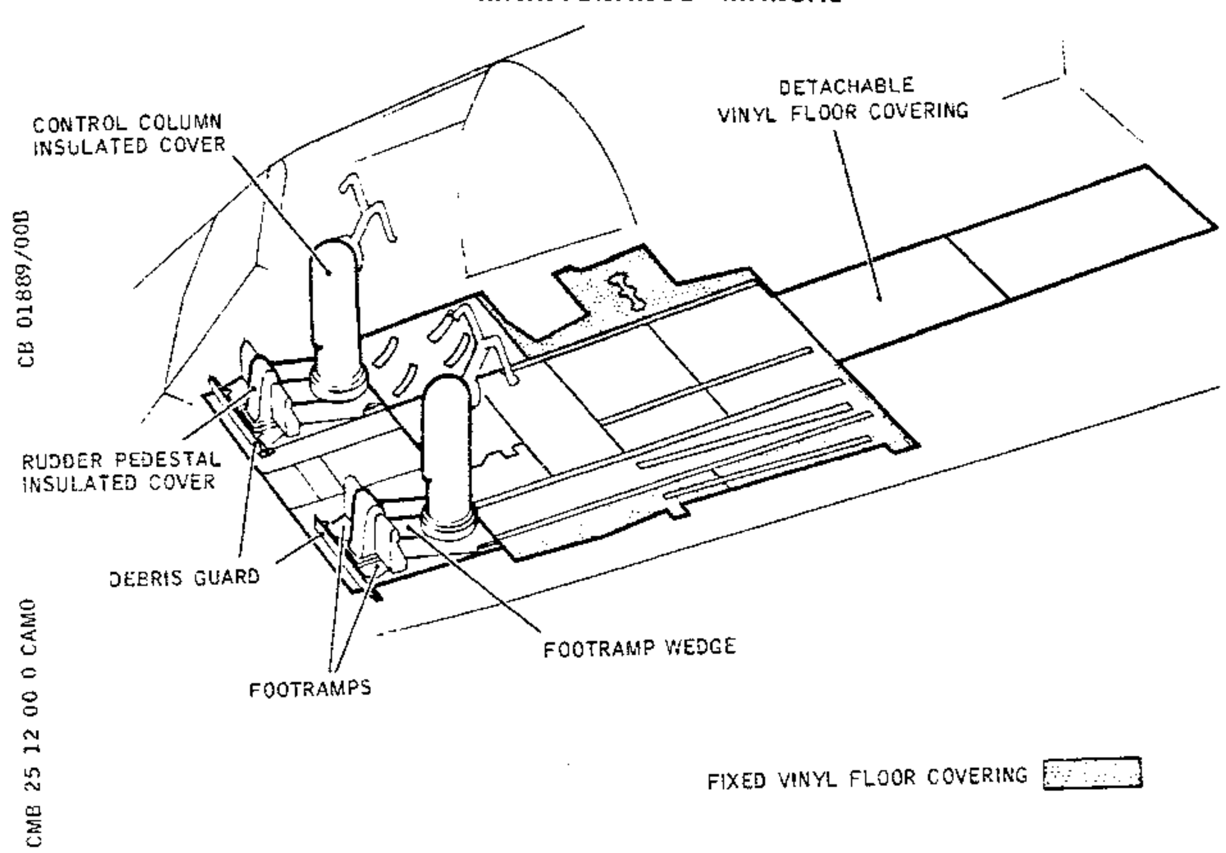
Side consoles are fitted to the sidewalls immediately outboard of the pilots stations, and a centre console is



\- Insulation Blankets, Frame Wrappings and Support Structure (Sheet 1 of 2)
Figure 002



Insulation Blankets, Frame Wrappings and Support Structure (Sheet 2 of 2)
Figure 002



- Insulated Raised Floor and Floor Covering
R Figure 003

situated between and forward of them. These consoles incorporate various instrument housings, controls and equipment stowage compartments.

For information on the flight compartment door refer to Chapter 52-51-00.

A dashboard structure which houses independently removable instrument panels is mounted on the forward section of the centre console, and is surmounted by a glareshield.

2. Frame Wrappings, Support Structure and Insulation
(Ref. Fig. 002)

The flight compartment is thermally insulated and sound proofed with glass wool insulation blankets and frame wrappings which are shaped to suit the aircraft structure.

The resin impregnated glass fibre support structure, provides support for the insulation and a mounting for the furnishing sidewall and ceiling panels. The structure, generally consisting of H-section channel members jointed

to form an arch within the aircraft structure, is attached to the floor beams and the stringers at various points. The structure members are joined at the top of their arch on the centre line of the aircraft by attachment to spine members which are bracketed to the top most stringer. The member which abuts the rear edge of the right- hand D.V. window when open, has a hinged D.V. window recess sealing panel attached to it.

Each insulated blanket consists of layers of glass wool contained in a reinforcing fabric, with an outer skin of non-porous fire proof plastic film. These blankets are fabricated to include self attaching tape, hinged strips and drain holes, using waterproof adhesives, stitching and adhesive sealing tapes. These components, methods of attachment and locations are shown in figure 2, the blankets being further retained by aircraft systems and components secured over them, and the furnishing panels.

3. Floor Covering and Insulated Raised Floor (Ref. Fig. 003)

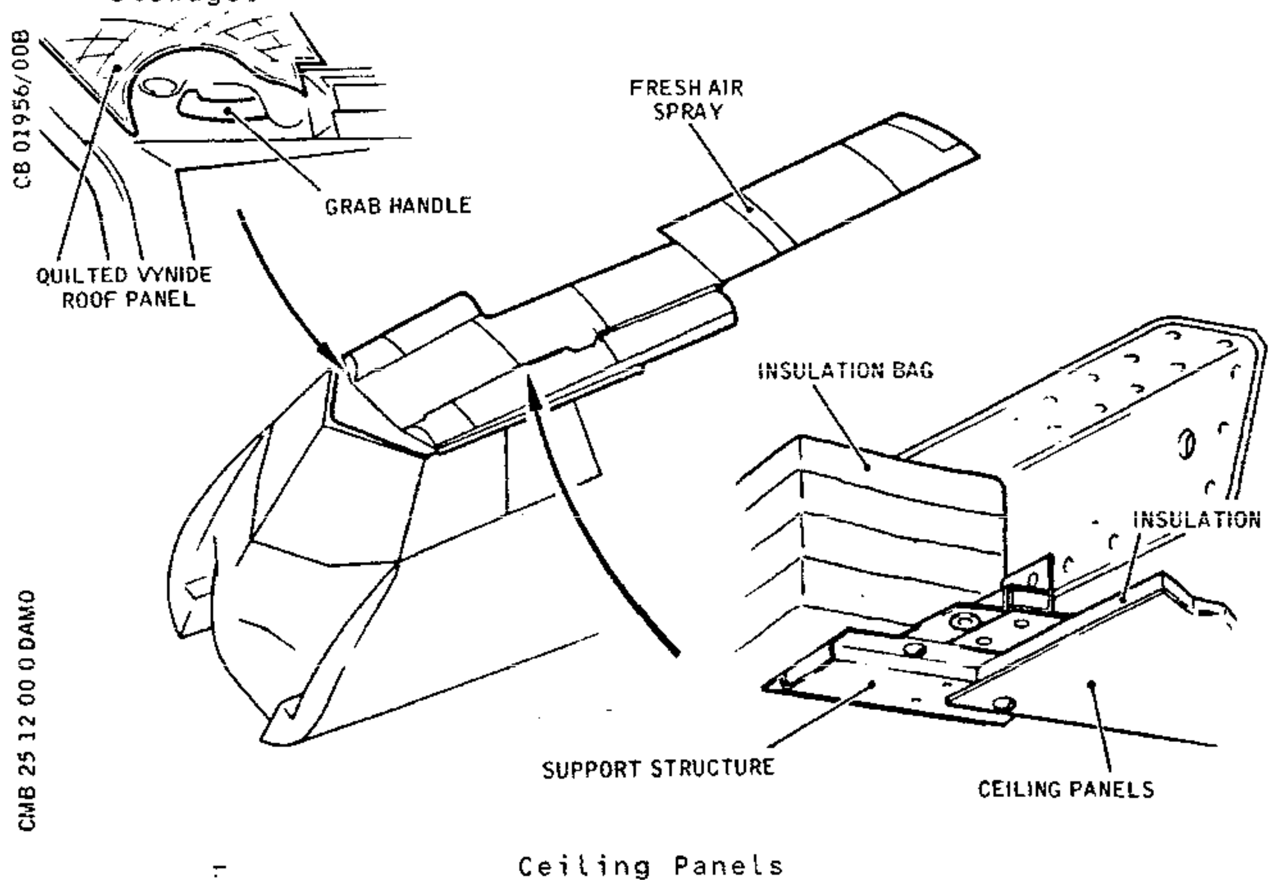
The flight compartment floor, with the exception of the
R B insulated raised floor, is clad with a non-slip grey vinyl floor covering. The vinyl is tailored to fit on assembly and the detachable panels are punched with holes to mate with the fasteners on the floor panels. Loose edges of the vinyl
R B panels are secured with tape No. 567 and Tretobond DR200 adhesive. The vinyl panels are tailored around the 3CM's console, the circuit breaker panel and the left-hand side console are
R B not detachable, and are secured to the floor with tape No.567
R B and Tretobond DR200.

The insulated raised floor at the forward part of the flight compartment comprises a centre section, left and right hand side sections, with foot ramps and wedges bolted to the centre section. The floor sections are fabricated with a double skin of impregnated glass fibre, containing a polyurethane foam insulating core; the foot ramps have metal treads and balsa wood cores. Insulated covers for the control columns and rudder pedestals are sealed to the insulated floor by flexible rubber gaiters.

Guard assemblies, made from laminated glass cloth, designed to prevent debris and foreign objects sliding forward into the nose wheel steering linkage area, are located on the cockpit floor forward of the captains' and co-pilots' rudder bars. Each guard assembly extends from the centre console to the side console closing panel. The guards are secured to the floor by utilising existing floor bolts and anchor nut positions.

4. Ceiling and Sidewall Panels (Ref. Fig.004 and 005)

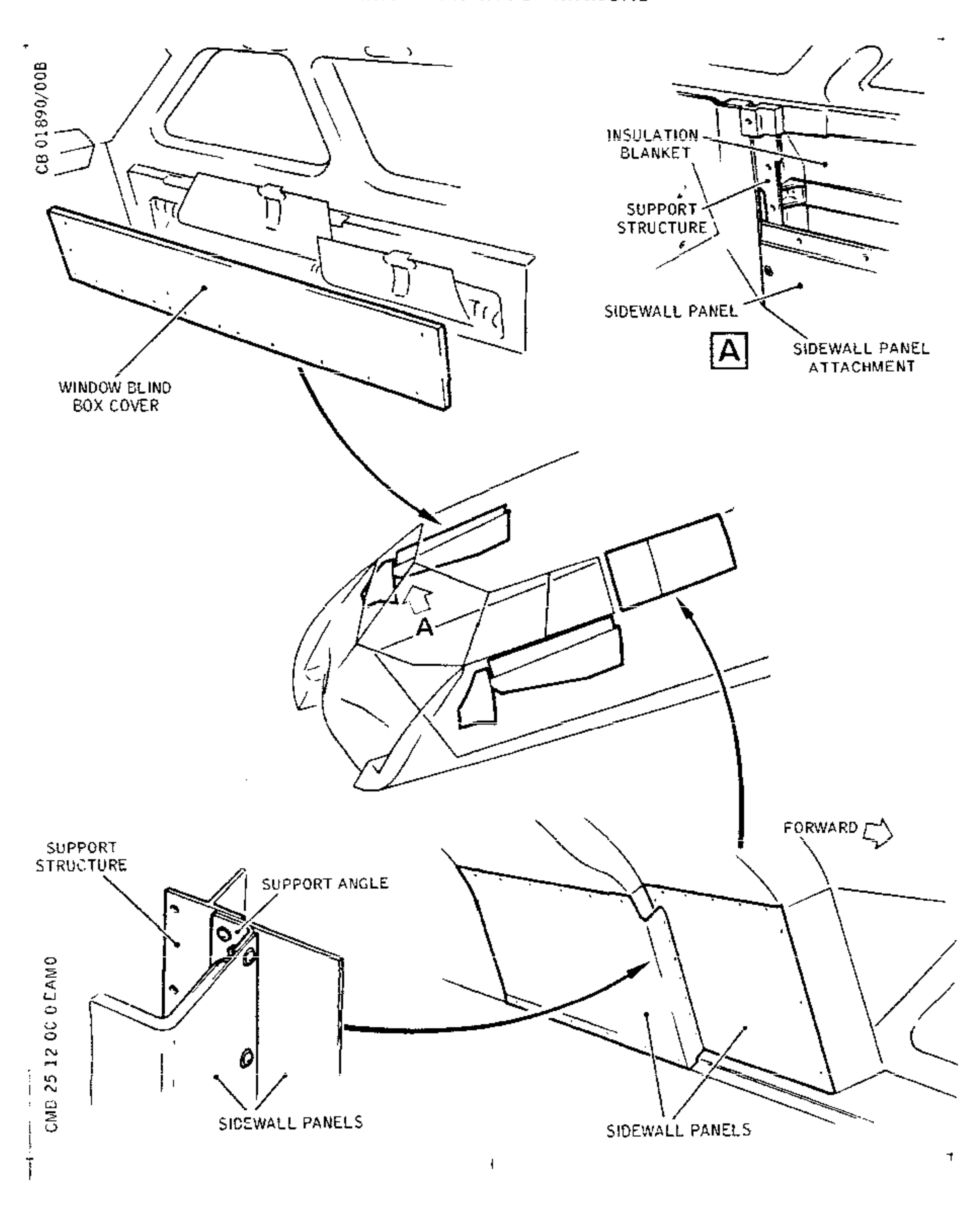
These removable panels provide the interior furnishing trim, and give access to the insulation blankets and fuselage structure, in addition to the aircraft systems that are concealed behind the panels. The ceiling panels are of two types. One type situated between the equipment racks, has rigid impregnated glass fibre skins enclosing a polyurethane foam core. The other type, above the pilots stations, has rigid impregnated glass fibre panels covered with quilted vynide. The sidewall panels are rigid impregnated glass fibre, fitted to the support structure, and include the blind boxes and sun visor stowage.



Ceiling Panels
Figure 004

5. Window Furnishings (Ref. Fig. 006)

The window furnishings consist of impregnated glass fibre mouldings in the form of sills and fairings around the windshield, direct vision (D.V.) and side windows, and insulated covers over the D.V. and side windows. These



Sidewall Panels
Figure 005

mouldings are shaped to their associated windows, and comprise hollow glass fibre frames filled with rigid polyurethane foam. When the mouldings are fitted together with their insulated distance pieces and securing panels, they completely seal the window frames and surrounding areas with the exception of the air conditioning distribution outlets.

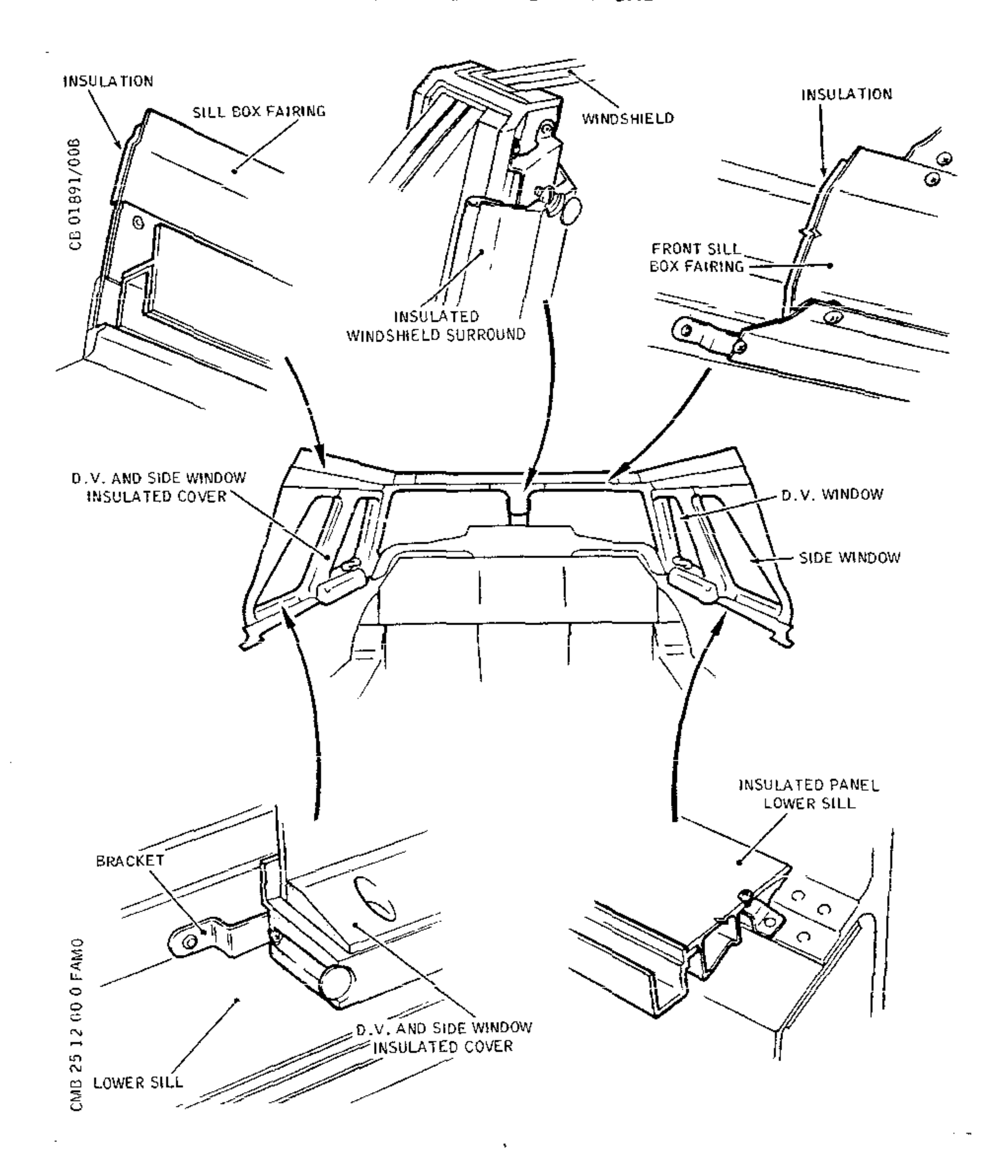
Insulated covers enclosing the inboard side of the D.V. and side windows protect the pilots against heat created by external friction. A cooling air flow from the air conditioning system is directed between the cover and the window, from outlets in the top window fairing. The covers are fitted with detachable transparent panels, which permit cleaning of the windows, and circular inspection panels which allow inspection and servicing of the desiccator assemblies (Ref. Fig. 6).

6. Side Consoles, Centre Console, Dashboard and Glareshield (Ref. Fig. 001)

Side consoles, which are fitted to each sidewall immediately outboard of each pilots station, incorporate instrument and control housings, and compartments for the stowage of miscellaneous equipment. They consist of metal frames which are bolted to fixed brackets on the aircraft structure, and metal panels finished with grained vynide, which are secured to the frame and quick release fasteners.

The centre console, which houses engine and flying controls, is situated between and forward of the pilots stations. The console consists of two main assemblies, a forward console supporting dashboard and glareshield, and a console set in a recess of the raised insulated floor which is made up of an insulated floor panel, a base structure and a hinged crate assembly with a guard rail on top. The side and rear insulated panels of laminated glass fibre with polyurethane foam cores, provide furnishing trim enclosing the two assemblies, giving the external appearance of one console.

The metal glareshield, finished in mat black and padded on the trailing edge with grained vynide covered foam padding, forms a continuation of the windshield furnishing trim, extending aft from the windshield to provide a canopy over the dashboard.



Window Surround Furnishings
Figure 006

FLIGHT COMPARTMENT LINING - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

This topic concerns the ceiling and sidewall panels which form part of the flight compartment lining. The panels allow access to the insulation blankets, conceal various aircraft services and complete the furnishing trim.

Two types of ceiling panel are fitted; the panels above the pilots' stations are rigid glass fibre panels covered with quilted vynide, and the panels above the centre aisle, between the equipment racks, are rigid impregnated glass fibre skins enclosing a polyurethane foam core. Some of the panels overlap each other, but they can be removed in any order.

When the quilted material on any single ceiling panel needs replacing, it is recommended that all the quilted panels be changed as a set to obtain a correct colour match.

The sidewall panels are rigid impregnated glass fibre panels fitted to the support structure. The panels can be removed without removing the sunvisor stowage or chart/cup holders which are mounted on the panels.

2. Ceiling Panels (Ref. Fig. 401)

A. Equipment and Materials

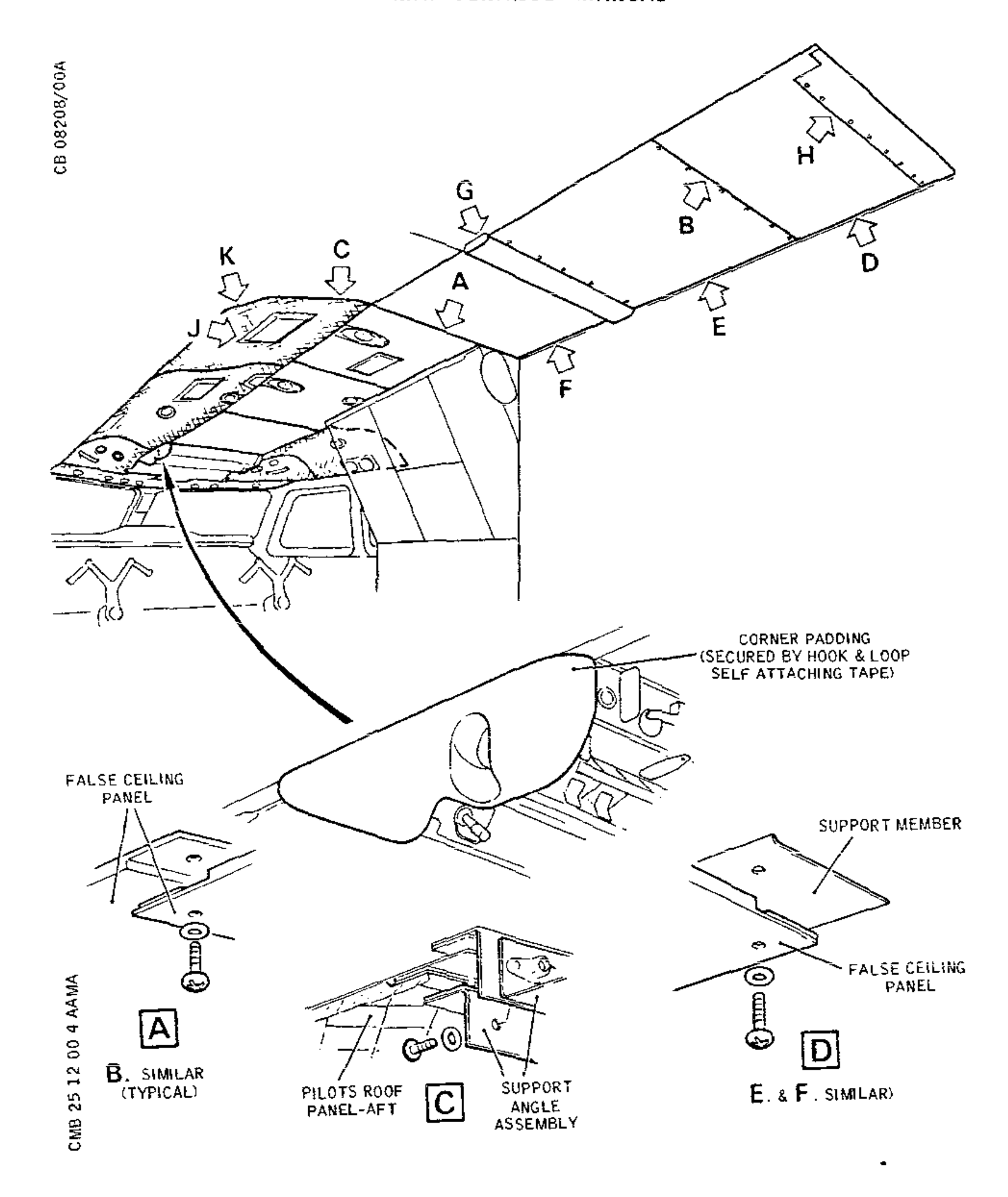
DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Bostik 2402 (20-30-00 No.328)	-

R B. Remove

(1) Remove the lamp assemblies where necessary (Ref. 33-12-00, Removal/Installation).

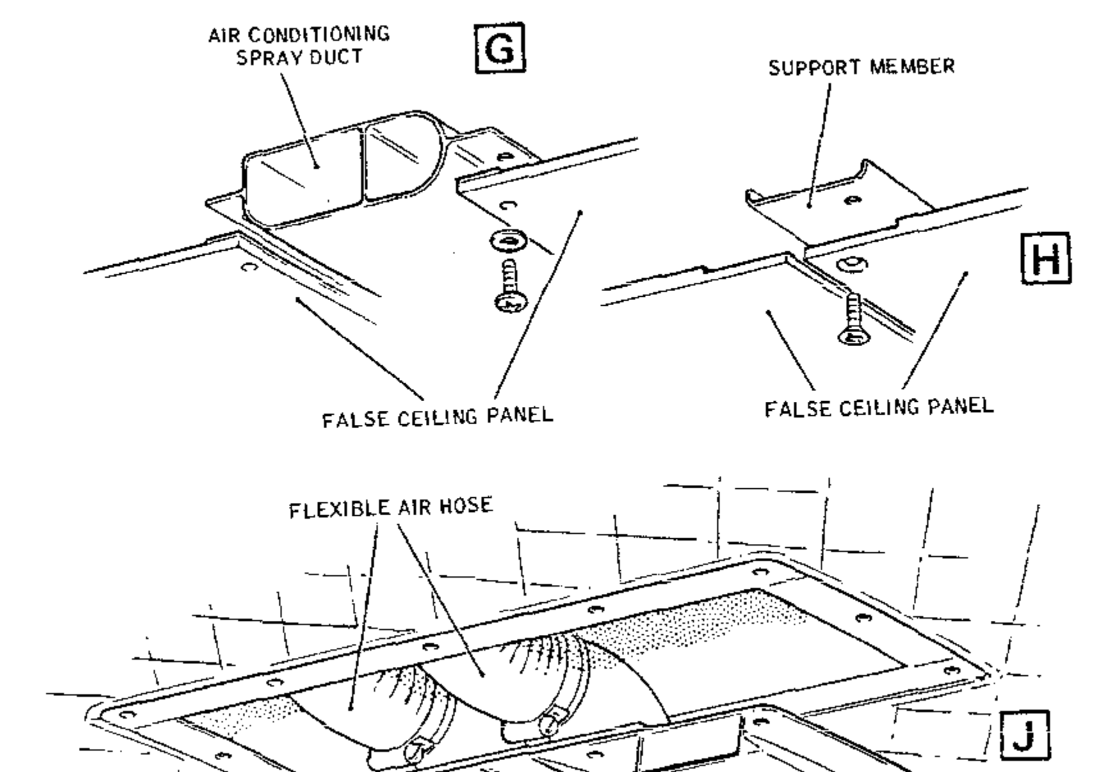
(2) Remove the rectangular air vane assemblies where necessary.

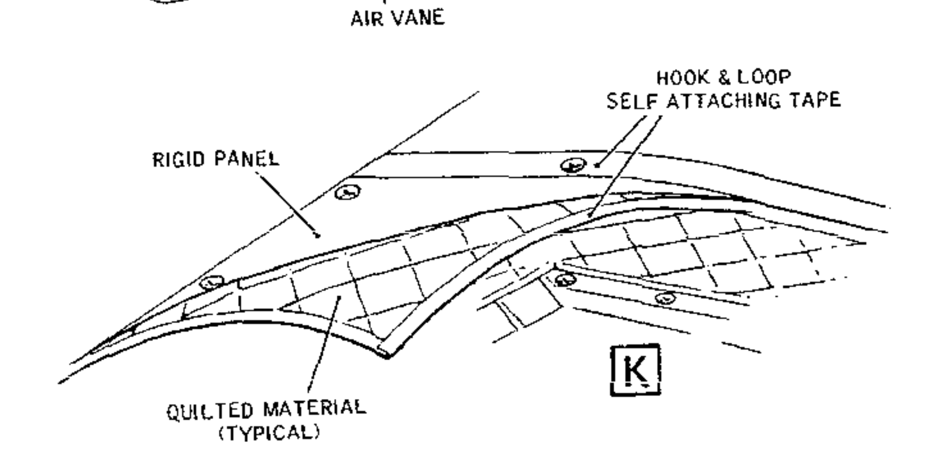
(a) Remove the screws and washers securing the air vane to the rigid panel.



Ceiling Panels - Installation (Sheet 1 of 2)
R Figure 401

CB 08209/00A





CMB 25 12 00 4 AAMB

R Ceiling Panels - Installation (Sheet 2 of 2)
Figure 401

R (b) Withdraw the air vane sufficiently to gain access to the wormdrive clip securing the flexible air hoses to the air vane flanges.

R (c) Loosen the wormdrive clips and uncouple the flexible air hoses. Remove the air vane.

(3) Remove the quilted covering from the panels, where necessary, to gain access to the rigid panel securing screws:

(a) Peel the quilted material away from the hook and loop self-attaching tape strips.

(4) Remove the rigid panels:

(a) Remove the screws and washers securing the panel to the roof structure.

(b) Where appropriate, lower one end of the panel slightly and slide the other end from under the lip of the adjacent panel.

(c) Remove the panel.

R C. Install

(1) Comply with the electrical safety precautions.

(2) Position the rigid panel by sliding the rebated end, where appropriate, under the lip of the adjacent panel ensuring that anchor nut fixings do not foul electrical looms.

<u>NOTE</u>: Ensure that the electrical cables for the lamp assemblies or the flexible air hoses for the air vane assemblies are positioned at the openings in the appropriate panels.

(3) Secure the rigid panel to the roof structure with washers and screws.

(4) Install the lamp assemblies, where necessary, (Ref. 33-12-00, Removal/Installation).

(5) Couple the flexible air hoses to the air vane flanges, where necessary, and secure each hose with a wormdrive clip. Position the air vane on the rigid panel and secure it to the panel with washers and screws.

(6) Position the quilted material on the rigid panel, where appropriate, and secure it to the panel by

applying firm pressure to engage the hook and loop self-attaching tape strips.

D. To Replace a Damaged Quilted Panel

NOTE: A replacement panel is supplied as a kit of parts for fitment on assembly to the aircraft.
Use the existing panel assembly as a model to assemble the parts.
R Any screwed on trim such as loudspeaker fairings, light fittings or ventilator fairings are to be transferred to the new panel.

(1) Attach the neoprene seals to the edges of the rigid panel with Bostik 2402 (Ref.20-25-15).

(2) Where a reinforcing strip is used on the edge of a panel to act as a backing for the self-attaching tape:

(a) Attach the tape to one side of the rigid panel with Bostik 2402 (Ref.20-25-15).

(b) Position the reinforcing strip on the obverse side of the panel, and drill the strip, panel and tape, minimum pitch 0.75 in (19 mm), maximum pitch 2in (50 mm).

(c) Secure the tape and the reinforcing strip to the panel with rivets and rivet burrs (Ref.20-26-26).

(3) Where no reinforcing strip is used:

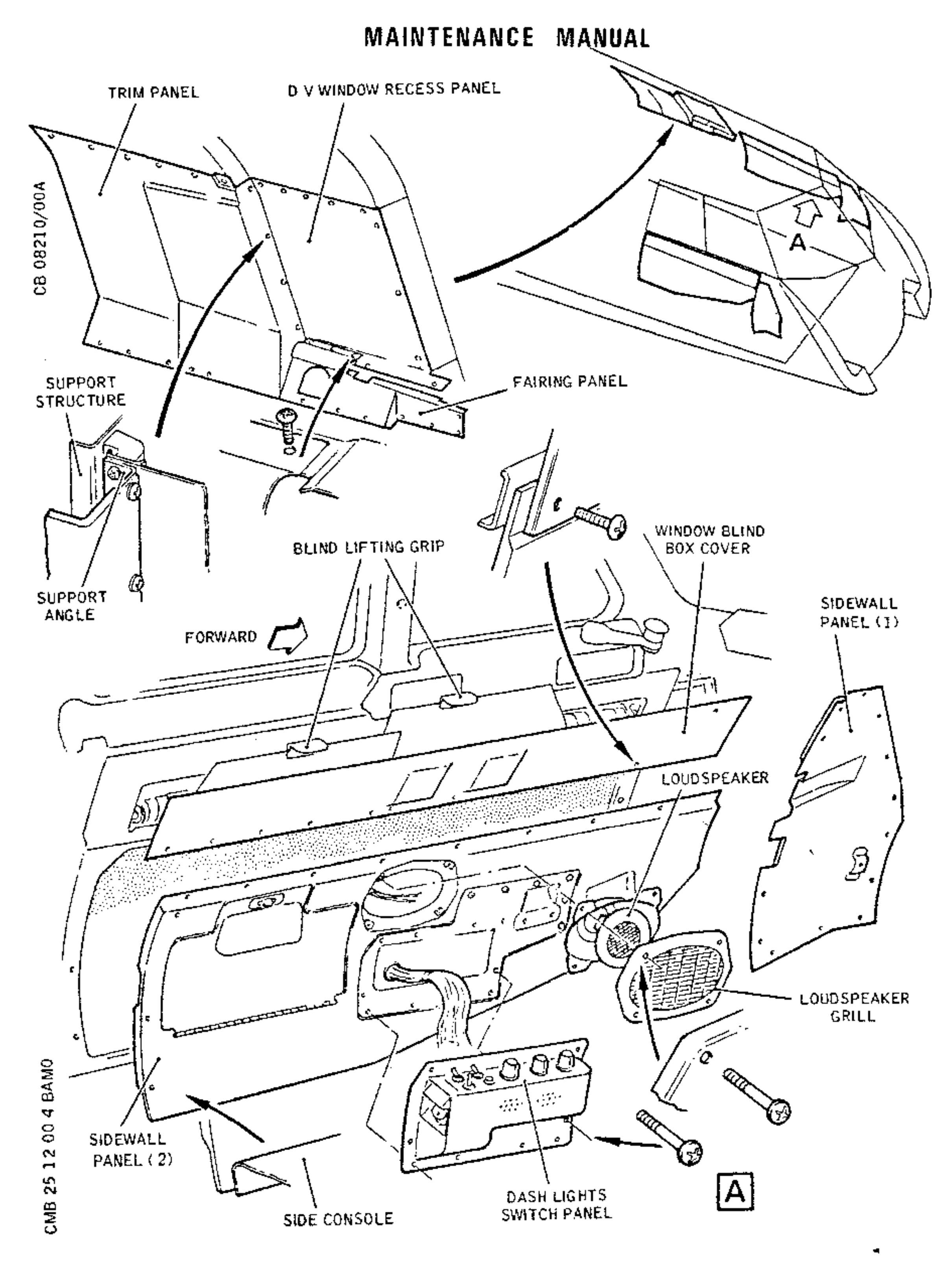
(a) Attach the self-attaching tape to the panel edge with Bostik 2402 (Ref.20-25-15).

(b) Drill the tape and panel, minimum pitch 0.75in (19 mm), maximum pitch 2in (50 mm). Secure the tape to the panel with rivets and rivet burrs (Ref.20-26-26).

(4) Attach insulating material, where supplied, to the panel with Bostik 2402 (Ref.20-25-15).

3. Sidewall Panels (Ref. Fig. 402)

NOTE: Certain panels on each side of the flight compartment are handed; the procedures are applicable to each side except where stated.



Sidewall Panels - Installation
Figure 402

A. Remove Sidewall Panel (1)

(1) Remove the screws around the periphery of the panel and remove the panel.

NOTE: Take care not to damage the insulation attached to the rear face of the panel.

B. Install Sidewall Panel (1)

(1) Position the panel, taking care not to damage the insulation attached to its rear face. Attach the panel to the sidewall structure with screws around the periphery of the panel.

C. Remove Sidewall Panel (2)

(1) Isolate the switch panel located on either the left-hand or right-hand sidewall panel by tripping the following circuit breakers as appropriate, and fit safety clips:

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
LH SWITCH PANEL			
LH DASH & CTR FLOODS SUP	1-213	L234	M22
STBY MAG COMPASS LT SUP	1-213	L380	P22
LH DASH INST LTS SUP	13-215	L372	A12
DASH & G/SHIELD PNL LTG SUP	13-215	L85	A11
PLT'S LT TEST SUP	15-215	L1001	E14
CHART STOWAGE LTS SUP	15-216	L237	D12
RH SWITCH PANEL			
RH DASH FLOOD SUP	5-213	L235	A19
RH DASH INST LTS SUP	13-216	L371	E 9
DASH & G/SHIELD PNL LTG SUP	13-215	L85	A11
PLT'S LT TEST SUP	15-215	L1001	E14
CHART STOWAGE LTS SUP	15-216	L237	D12

(2) Remove the screws securing the window blind box cover to the blind box; remove cover.

(3) Remove the screws securing the dash lights switch panel to the sidewall panel. Withdraw the switch

panel sufficiently to gain access to the electrical connector at the back of the switch panel. Disconnect the electrical connector and remove the switch panel.

(4) Remove the screws securing the loudspeaker grill and remove the grill. Remove the loudspeaker from its housing sufficiently to gain access to its electrical connector. Disconnect the electrical connector and remove the loudspeaker.

(5) Remove the screws securing the top and end flanges of the sidewall panel to the sidewall structure. Ease the panel up and out of the channel behind the side console; remove the panel.

D. Install Sidewall Panel (2)

(1) Comply with the electrical safety precautions.

(2) Position the sidewall panel in the channel behind the side console. Ensure that the cable connectors for the loudspeaker and the dash lights switch panel are accessible through the openings in the sidewall panel. Secure the panel to the sidewall structure with screws along the top and the end flanges.

(3) Connect the loudspeaker electrical connector, ensuring that the mating surfaces are clean and undamaged. Position the loudspeaker in its housing. Fit the loudspeaker grill and secure it with screws.

(4) Connect the dash lights switch panel electrical connector, ensuring that the mating surfaces are clean and undamaged. Position the switch panel in its opening in the sidewall panel and secure it with screws.

(5) Fit the window blind box cover; ensure that the blind lifting grip is protruding over the top edge of the cover. Secure the cover with screws.

(6) Test the loudspeaker operation by testing any master warning function (Ref. 33-15-00, Adjustment/Test).

(7) Operationally test the LH or RH dash lights switch panel as appropriate (Ref. 33-16-00, Adjustment/Test).

E. Remove Fairing Panel

(1) Remove the screws securing the fairing panel to the

sidewall structure. To remove the panel, slide the aft end of the panel from under the trim panel.

F. Install Fairing Panel

(1) Slide the aft end of the fairing panel under the edge of the trim panel, align the drilled holes in the fairing panel with those in the sidewall structure. Secure the panel with screws.

G. Remove Trim Panel and DV Window Recess Panel.

(1) Remove the screws from the top and bottom edges of the trim panel and the screws from the forward flange securing the trim panel to the support angle on the DV window recess panel. Remove the trim panel.

(2) Remove the screws and washers around the periphery of the DV window recess panel and remove the panel. Take care not to damage the insulation attached to the back of the panel.

H. Install DV Window Recess Panel and Trim Panel

(1) Position the DV Window recess panel taking care not to damage the insulation attached to the back of the panel. Secure the panel to the sidewall structure with washers and screws.

(2) Position the trim panel, secure the forward flange to the support angle on the DV window recess panel with screws, then secure the rest of the panel to the sidewall structure with washers and screws.

J. Conclusion

(1) Ensure that the ceiling and sidewall panels are clean, using a damp cloth if necessary.

FLIGHT COMPARTMENT POLYVINYLCHLORIDE (PVC) FLOOR PANELS - APPROVED REPAIR

1. General

PVC panels are bonded to the structural floor panels to protect them from wear, and generally are arranged so that their boundaries follow those of the floor panels. Access to some of the panels may require the removal and/or repositioning of crew seats.

There is no limitation on the extent of the repair area provided that the damage does not extend into the structural floor panel. When assessing damage, it is recommended that the repair area is extended to that which can be bounded by a single straight line, to facilitate cutting of the PVC.

2. PVC Floor Panel (Ref. Fig. 801)

A. Equipment and Materials

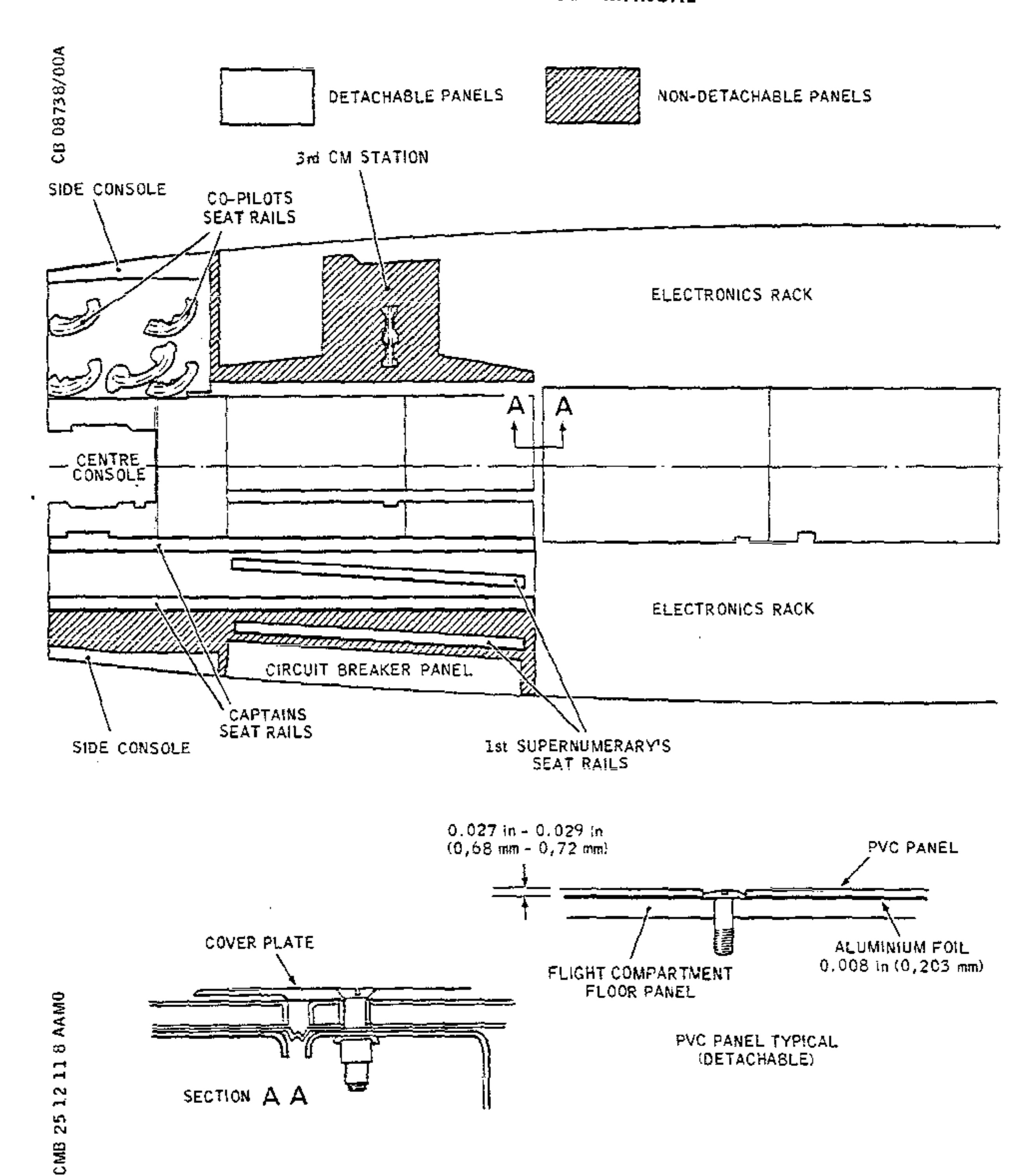
DESCRIPTION	PART NO.
Cleaning Solvent Methylethylketone (MEK) (Ref. 20-30-00, No.470)	-
R B Tretobond adhesive DR200	-
R B Tape No. 567	-
Sharp knife	-
Non-metallic scraper	-

B. Prepare to Remove PVC Panel

NOTE: Obtain maximum work room by manually operating the crashlock handles on each of the crew seats, and moving the seats as necessary.

(1) Trip the Captains 2nd pilots and 3CMs seat circuit breakers and fit safety clips.

(2) Remove the 2nd pilots and 3CMs seats, (Ref.25-11-21 and 25-11-31, Removal/Installation) as necessary.



PVC Floor Panels - Approved Repair
Figure 801

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
1st PILOT SEAT SUPPLY	14-215	M253	A 3
1st PILOT SEAT CONTROL	15-215	M256	G 6
2nd PILOT SEAT SUPPLY	14-216	M251	F17
2nd PILOT SEAT CONTROL	15-216	M254	C22
3CM SEAT SUPPLY	14-216	M252	E17
3CM SEAT CONTROL	14-216	M255	D22

(3) Ensure that the area is clear of equipment and is clean.

(4) Mark-off the cut-line on the PVC panel, and cut through the PVC.

CAUTION: PVC THICKNESS IS 0.027-0.029 IN (0.68-0.72 MM); DO NOT CUT BEYOND THE PANEL.

C. Remove Damaged PVC Panel

NOTE: The PVC panels are bonded to a thin aluminium foil covering on the top surface of the structural
R B floor panels with Tretobond DR200 and Tape No. 567.

(1) If necessary, remove the cover plate securing a PVC panel in the centre aisle.

(2) Using a non-metallic tool, carefully separate the required part of the PVC floor panel from the fuselage floor panel; remove the disbonded part.

D. Repair

(1) Remove existing adhesive using a non-metallic scraper, and wipe the area clean with a lint-free cloth moistened with cleaning solvent.

(2) Ensure that the floor panel is undamaged. If necessary, repair the aluminium foil as detailed in 53-20-00 Approved Repairs.

NOTE: Butt jointing of the foil is acceptable at the PVC joint.

(3) Cut a piece of PVC from a roll to the required size and, if necessary, drill holes for floor panel fasteners.

(4) Ensure that the repair area, on which the PVC is to be laid, is free from foreign particles.

R B (5) Apply adhesive Tretobond DR200 over the entire area of the PVC panel. Press the PVC panel to the Fuselage floor, ensuring good adhesion along the edges and around cut-outs. Ensure that the holes align with the floor panel fasteners and that all exuded adhesive is removed from the holes.

(6) If removed, position the cover plate on top of the PVC panel joint between the miscellaneous equipment rack and electronic rack; secure it with fasteners.

E. Conclusion

(1) Install the 2nd pilots and 3CM seats (Ref.25-11-21 and 25-11-31, Removal/Installation as necessary.

(2) Remove the safety clips and reset the circuit breakers previously tripped.

FLIGHT COMPARTMENT MISCELLANEOUS EQUIPMENT - DESCRIPTION AND OPERATION

1. General (Ref. Fig.001 and 002)

   The miscellaneous equipment, located throughout the flight compartment, as shown in the illustration, includes fixed and stowable equipment and various stowages.

**ON A/C 001-005,

R **ON A/C 006=007,

2. Fixed Equipment

   Fixed equipment includes a waste paper bag which is clipped to the rear of the flight compartment centre console.

**ON A/C 001-005,

   Ash trays are provided at the pilot's and 3 CM's positions.

R **ON A/C 006-007,

   Ash trays are provided at the pilot's, 3 CM's and 1st Supernumerary positions.

   Grab handles provide an anchorage for the flight compartment escape rope hooks, and hand grips for the crew members when climbing through the direct vision windows in an emergency (Ref. 25-61-00). Each grab handle spans a dished recess in the roof panel, at the forward end of each of the quilted vynide roof panels.

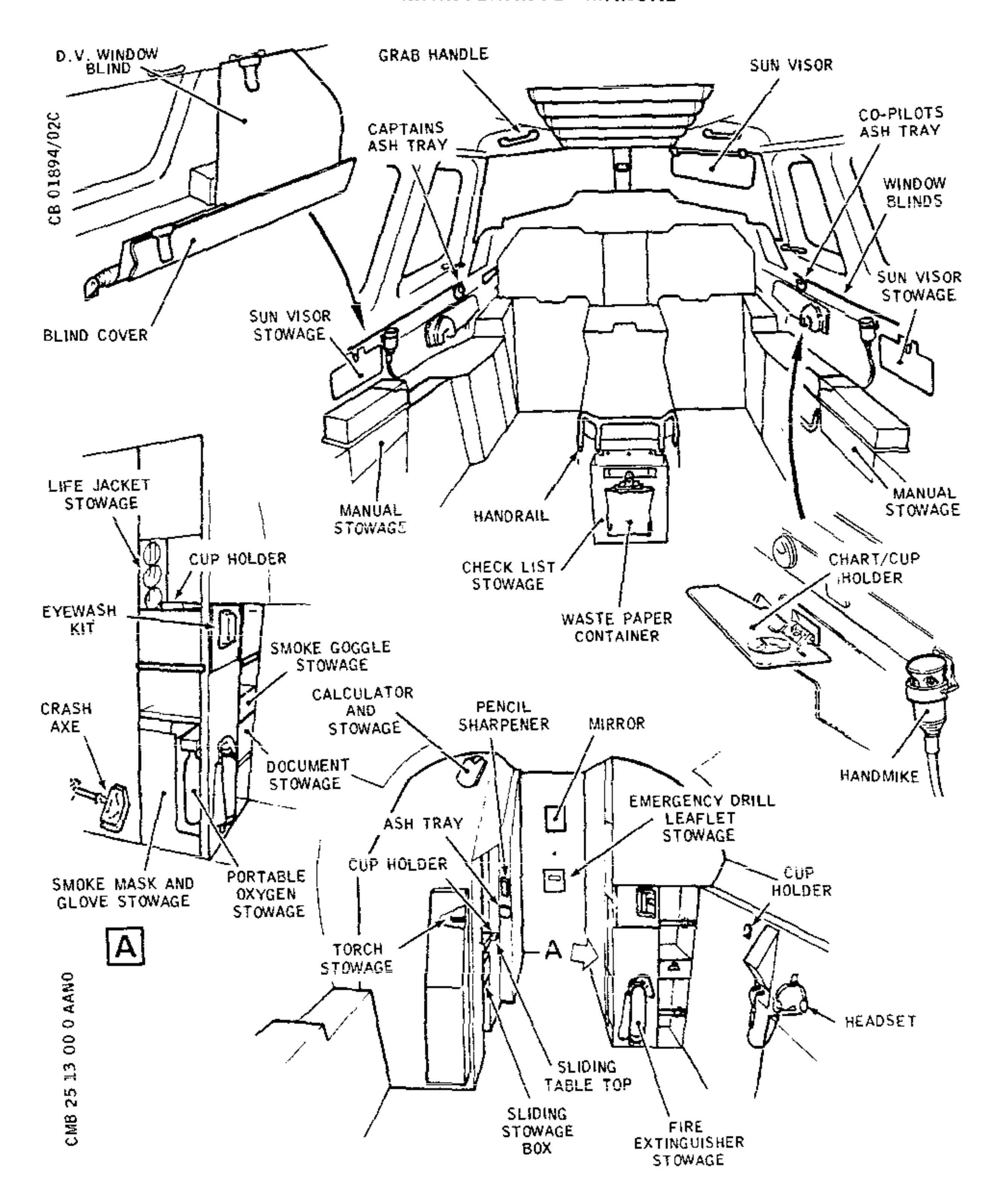
   Fold away cup holders are provided for the pilots and first supernumerary, and slide away cup holders for the 3CM and 2nd supernumerary crew member. The pilot's cup holders are incorporated in the folding chart holder (Ref.para.6).

3. Stowages

   Various stowages are provided throughout the flight compartment and the sliding stowage at the 3CMs station (Ref. Fig. 003) includes compartments for filaments, pencils and smoke goggles.

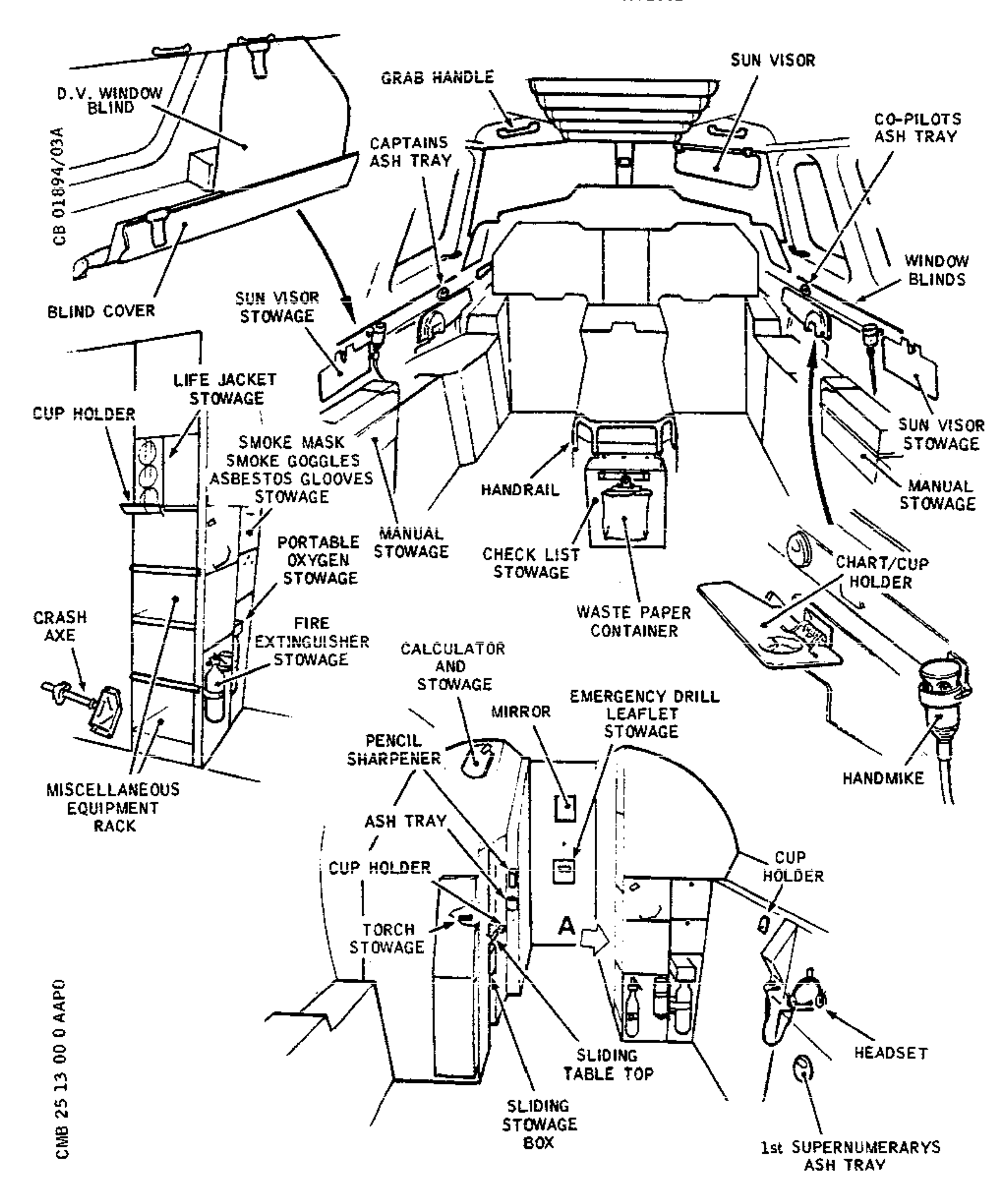
4. Sun Visors

   The sun visors which are mounted on brackets above the windshield protect the pilots from sunlight glare, and when not in use are stowed in the sidewall panel immediately outboard of

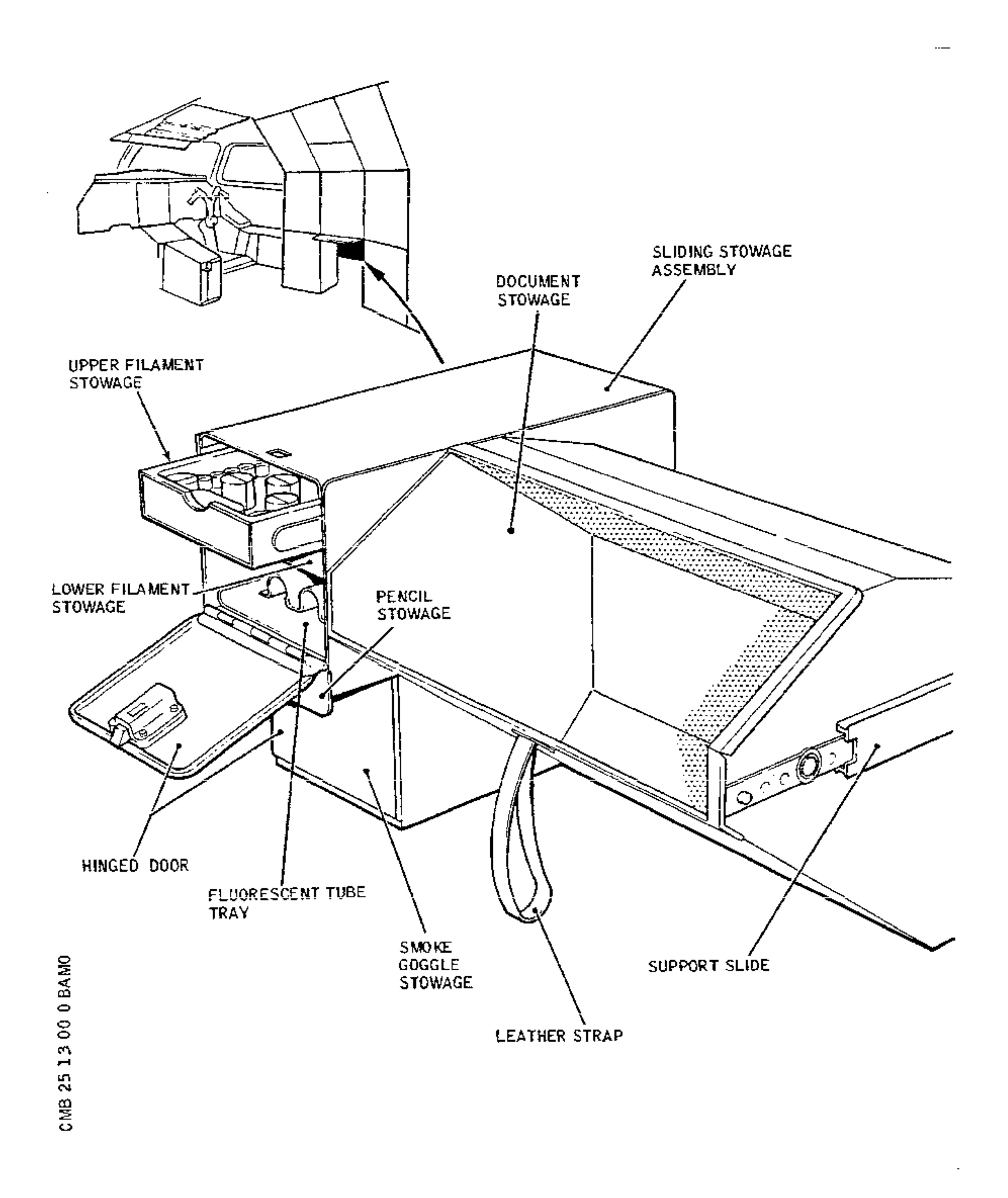


Flight Compartment Miscellaneous Equipment
Figure 001

R



Flight Compartment Miscellaneous Equipment
Figure 002



Sliding Stowage Assembly
Figure 003

each pilots station. The visors are made of green transparent plastic. The visors are a push fit into the mounting brackets.

5. Window Blinds

The window blinds, which protect the pilots from glare through the direct vision and side windows, are wound on spring loaded rollers contained in window blind boxes located at window sill level. Each blind is shaped to suit the particular window that it covers, the aft blind covering the side window overlaps the forward blind covering the direct vision window. When not in use, only a stiffened edge of the blind and the lifting grip protrude above the blind box sidewall covers.

Each lifting grip has a tongue on the outboard side, which, when the blind is pulled from the box against the tension of the spring roller, hooks over a catch plate fitted to a slot on the direct vision window rail trim. The blind is returned to the stowed position by using the lifting grip to lift the tongue off the catch plate, and guiding the blind back into the box, whilst the spring tension on the roller rewinds the blind.

6. Chart Holders

Chart holders are fitted to the sidewalls outboard of each pilots seat. The holders incorporate a clip for securing the chart book and a recess which serves as a cup holder. When not in use, the chart holders fold flat against the sidewalls.

FLIGHT COMPARTMENT WINDOW BLINDS - REMOVAL/INSTALLATION

1. General

Two spring loaded roller blinds are fitted in each blind box beneath the sills of the direct vision and side windows. The blinds pull upwards and hook onto catch plates on the direct vision window rail trim. Tension on the blind springs is
R adjustable. The removal and installation procedure of each blind is identical, the side-window blind to be removed first, and the blinds should be in the stowed position prior to removal. The blinds on the right hand side of the flight compartment are the opposite hand of those on the left hand side.

2. Window Blinds (Ref. Fig. 401)

A. Remove Window Blinds

(1) Remove the screws securing the blind pocket cover to the blind box; remove the cover.

(2) Remove the screws securing the roller spring brackets to the blind box; remove the blinds and brackets.

B. Install Window Blinds

(1) Secure the aft bracket of the forward blind to the blind box with the screws.

(2) Tension load the roller spring:

(a) Place the forward bracket on the forward blind spindle.

(b) Turn the bracket clockwise three complete turns.

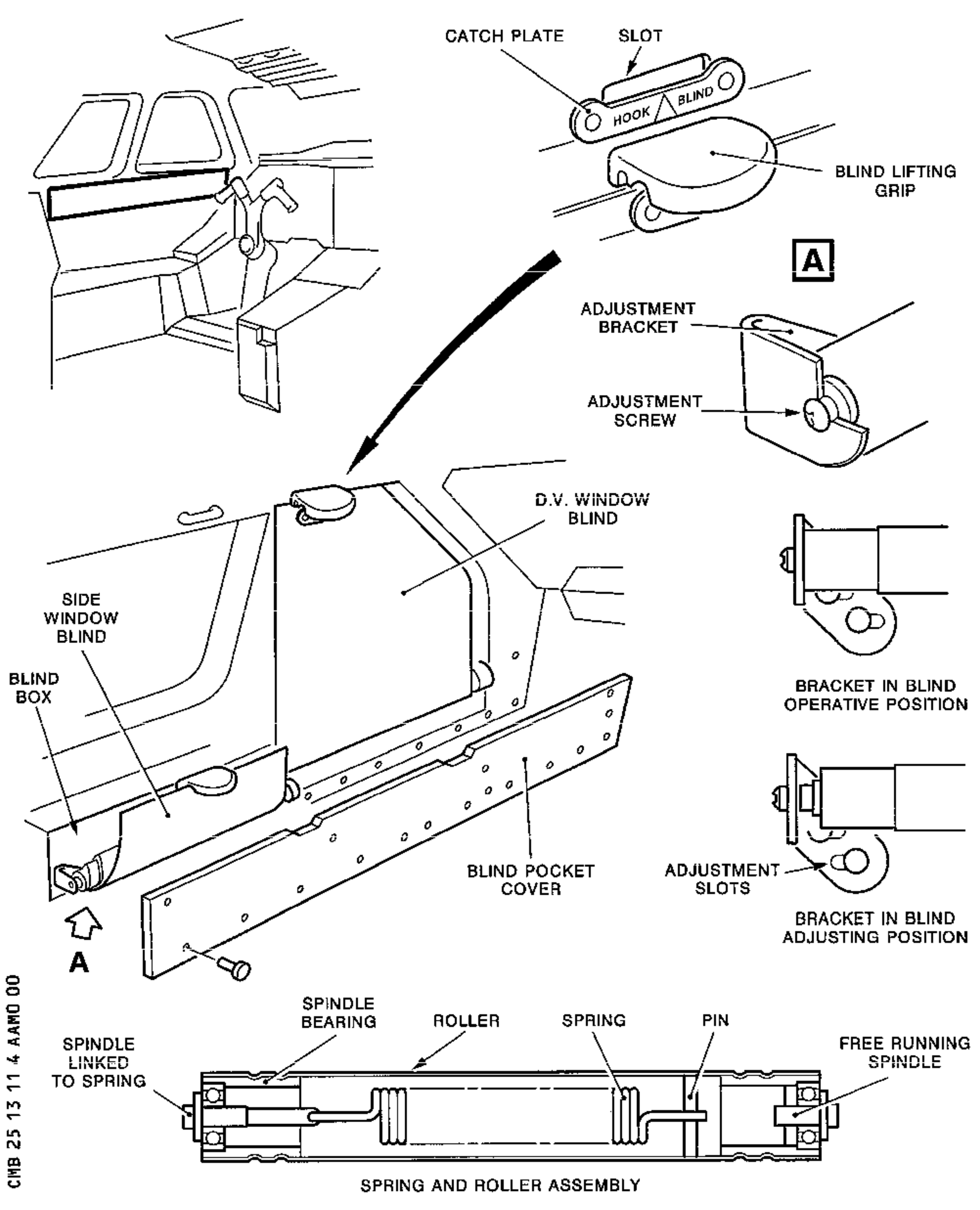
CAUTION: CARE SHOULD BE EXERCISED TO ENSURE THE SPRING IS NOT OVERWOUND.

(c) Place the aft end of the roller into the aft bracket, taking care not to allow the tension on the roller to unwind; secure the forward bracket to the blind box with the screws.

(3) Test the blind:

(a) Pull up the blind, and hook the tongue on the lifting grip over the catch plate on the window rail trim.

Printed in England



Flight Compartment Window Blind
Figure 401

(b) Unhook the blind and allow it to wind onto the roller.

(4) Should the speed of the return not be sufficient, or the blind not completely rewind, adjust the blind:

(a) Slacken the screws securing the forward bracket.

(b) Hold the pan head screw in the end of the blind spindle, to stop the blind unwinding.

(c) Slide the bracket forward to clear the squared end of the spindle.

(d) Turn the blind one quarter turn clockwise.

(e) Slide the bracket aft to engage the squared end of the spindle.

(f) Tighten the bracket screws.

(g) Test the blind. If required repeat the process using increments of quarter turns to increase the spring tension until a satisfactory operating tension is obtained.

(5) Install the aft blind in a similar manner as the forward blind (Ref. para. B(1)).

(6) Position the blind pocket cover, ensuring the lifting grip is protruding over the top edge of the cover, and secure with the screws.

NOTE: If the blind pocket cover is replaced with
R a new item, proceed as in para 2C.

C. Fit New Blind Pocket Cover

NOTE: The blind pocket covers are handed.

(1) Undo the screws and remove the ashtray and spring clip (where applicable) from the old blind pocket cover.

(2) Using the old cover as a pattern, trim the new cover to length and to the line of the pilot's console.

(3) Using the old blind pocket cover as a template drill the required number of holes 0.164 in (4.17 mm) in diameter; countersink 100 deg all drilled holes to

R the required depth.

R (4) Paint the countersinks and trimmed areas the same
R colour as the old cover (Ref.20-24-14 and 20-24-28).

R (5) Position the ashtray and spring clip (where applic-
R able) and secure them with screws.

R (6) Position and secure the blind pocket cover.

FLIGHT COMPARTMENT WINDOW BLINDS - APPROVED REPAIRS

1. General

Two window blinds are used to cover the direct vision window and the side window on each side of the flight compartment. Each blind consists of a PVC coated woven glass fabric and incorporates a steel stiffener and lifting grip at one end of the blind and a spring-loaded roller at the other end. The blinds on each side of the flight compartment are handed.

This repair allows for the assembly of the blind and its constituent parts, and its replacement on the spring-loaded roller.

2. Window Blind Repair (Ref. Fig. 801)

A. Equipment and Materials

DESCRIPTION	PART NO.
Cleaning Solvent, BACM 302 (20-30-00, No.473)	-
Adhesive, Bostik 1768 (20-30-00, No.332)	-
Acrylic Paint, White (20-30-00, No.634)	-

B. Prepare to Repair Blind

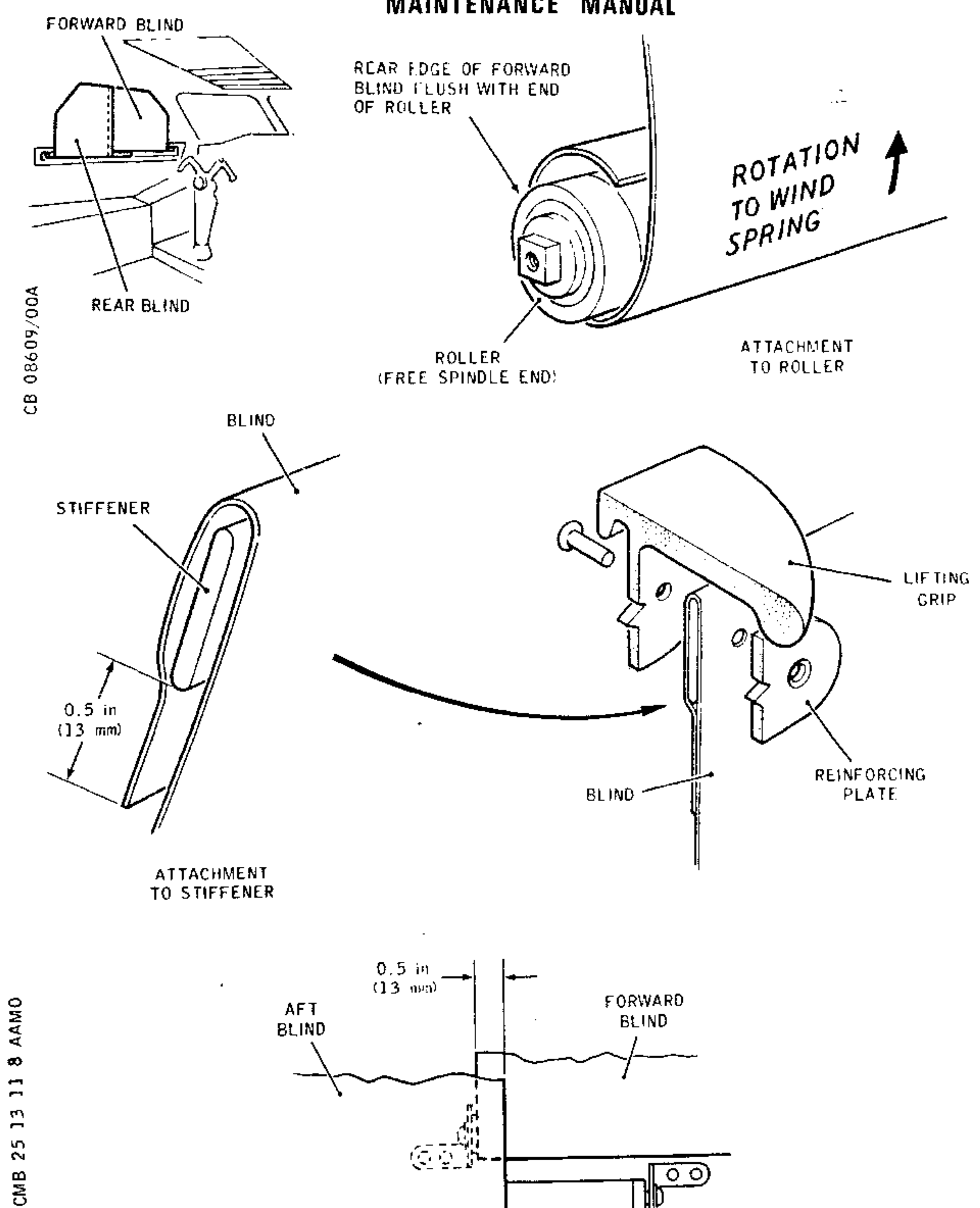
(1) Remove the blind and roller from the blind box (Ref. 25-13-11, Removal/Installation).

(2) Strip the blind from the roller and clean any adhesive from the roller using BACM 302 cleaning solvent.

RB (3) Manufacture blinds in accordance with Drawing E71-5177
RB (Window Blind Forward) and E71-5178 (Window Blind
RB Aft).

C. Repair Blind (Ref. Fig. 801)

(1) Bond the stiffener to the top edge of the blind with adhesive, as follows:



Flight Compartment Window Blinds - Approved Repair
Figure 801

(a) Apply a uniform brush coating of adhesive to the fabric backed surface of the PVC. Allow adhesive to dry thoroughly.

(b) Apply a uniform brush coating of adhesive to each mating surface of the blind and stiffener. Allow adhesive to dry at room temperature for 15 to 25 minutes in a dust free atmosphere.

(c) Immediately following the drying period, bring the mating surfaces together and accurately position them, as once mated they cannot be separated.

(d) Using any suitable method (hand or roller) apply pressure to the bonded area working from the centre outwards to exclude all traces of air.

(e) Maintain as high a pressure as practicable over the entire bonded area for a minimum period of one hour.

(f) Allow the adhesive to cure at room temperature for at least twelve hours before handling.

(2) Position the blind lifting grip and reinforcing plate on the blind stiffener to correspond with the slot in the window rail trim. Drill and countersink two 0.094 in (2.4 mm) diameter holes and secure the lifting grip and reinforcing plate to the stiffener with rivets.

(3) Bond the blind to the spring-loaded roller as follows:

(a) Position the blind on the roller so that when the blind is unrolled the spring inside the roller is in tension. Bond one complete revolution of the blind with adhesives in a similar manner as for securing the stiffener as detailed in operation (1).

NOTE: For the forward blind, align the rear edge of the blind with the rear edge of the roller.
For the aft blind, overlap the forward edge of the blind 0.5 in (12.7 mm) over the rear edge of the forward blind.

(b) After bonding the blind to the roller, inscribe the legend 'ROTATION TO WIND SPRING' and paint an arrow on the blind with white acrylic paint at the free spindle end of the roller (Ref. Fig. 801).

C. Install Blind

(1) Install the blind in the blind box, and adjust the roller spring tension (Ref. 25-13-11, Removal/Installation).

SLIDING STOWAGE - REMOVAL/INSTALLATION

1. General (Ref. Fig. 401)

The sliding stowage consists of four containers used as stowages for miscellaneous equipment. It is housed in a stowage assembly secured to the Third crew member's station support structure immediately beneath the sliding table top. The stowage is retained in the closed and in the extended positions by a roller catch which contacts chamfered surfaces of a runner secured to the fixed part of the assembly. Two spring clips positioned in the roller rails prevent the sliding stowage from inadvertently being removed when extending the stowage. The sliding stowage is extended by pulling on the leather strap attached to the front of the assembly.

2. Sliding Stowage Assembly

A. Equipment and Materials.

DESCRIPTION	PART NO.
Torque spanner, 0-50 lbf in (0-0.565 mdaN) range	-

B. Removal Procedure.

(1) Manually move the Third crew members seat inboard to a position within the white bands on the seat trolley.

(2) Manually move the Third crew members seat and trolley forward; towards the centre console.

(3) Remove the spare bulb filaments and the smoke goggles to a safety area and ensure that the document and pencill stowages are completly empty.

NOTE: All refuse must be removed from the sliding stowage to prevent any spillage during the removal procedure.

(4) Remove the sliding stowage.

(a) Grasp the leather strap and pull the sliding stowage to the extended position.

(b) Press and hold in the spring clips either side

of the stowage runners and withdraw the stowage from the channel rails.

(c) Remove the stowage to a safety area for storage.

(d) Return the two channel rails into the stowage assembly to prevent the rails being damaged.

(5) Remove the bolts securing the kick panel and remove the panel from the leg well.

(6) Support the stowage assembly and remove the four bolts securing it fore and aft to the support structure; remove the stowage.

C. Installation.

(1) Ensure that all tools and equipment are removed from the vicinity of the Third crew member's leg well, and that the leg well is clean.

(2) Position the stowage assembly and secure it to to support with the bolts finger tight; torque load each bolt to between 40 to 45 lbf in (0.452 to 0.508 mdaN).

(3) Position the kick plate and secure it to the structure with the bolts finger tight; progressively tighten all the bolts.

(4) Replace the sliding stowage assembly:

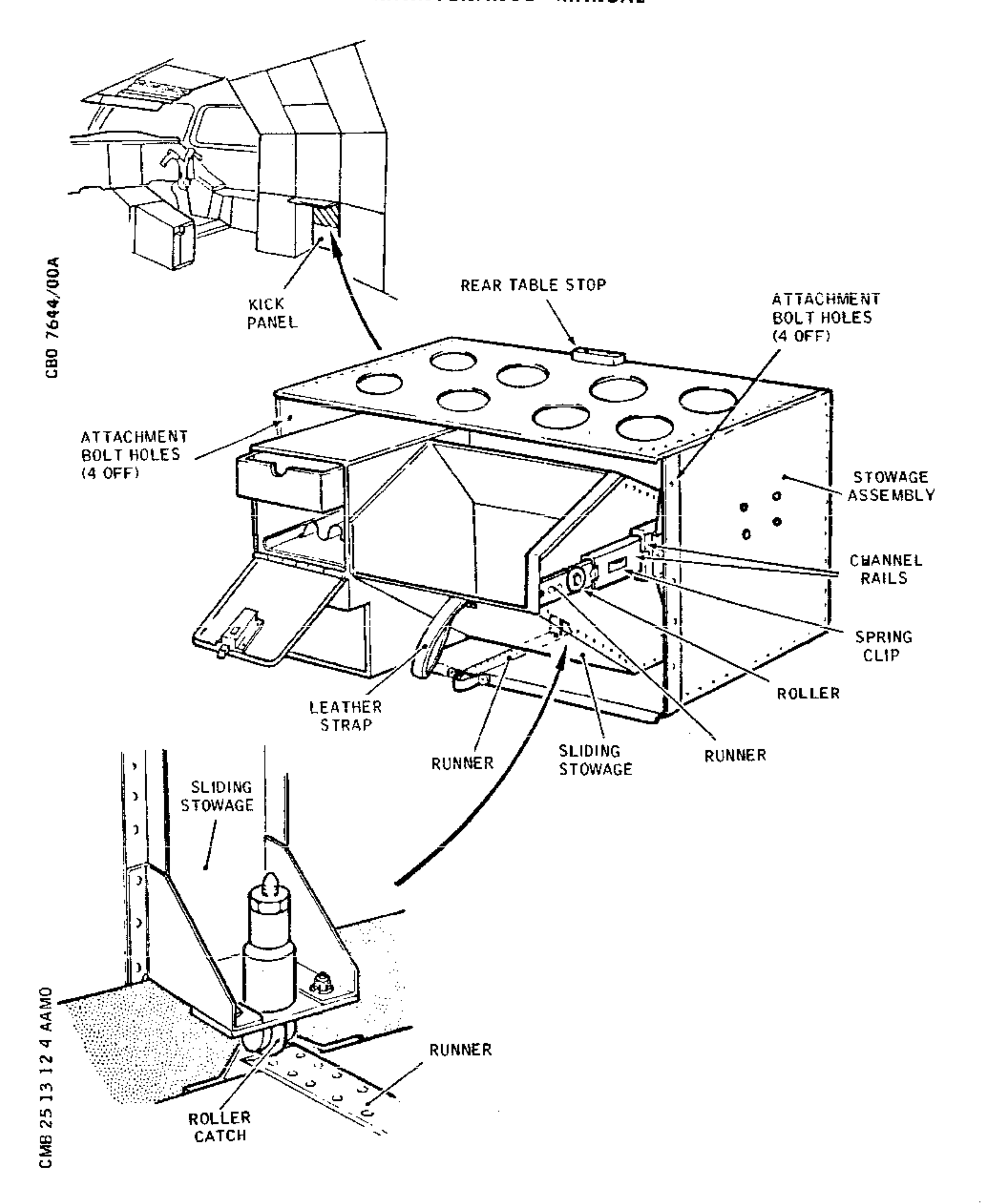
(a) Inspect the rollers, spring clips and the roller catch for freedom of movement, cleanliness and security of attachment.

(b) Pull out the two channel rails to the full extent from the stowage assembly.

(c) Position the sliding stowage between the rails and engage the rollers into the channel rails. Gently push the stowage into the fully closed position, ensuring that the two spring clips lock into the slots provided in the channel rails.

(5) Operate the sliding stowage to ensure smooth operation of movement and its correct retention.

(6) Check that the assembly is held, by the roller catch in both the closed and the extended positions,



Sliding Stowage - Installation
Figure 401

sufficiently to prevent the sliding stowage assembly moving during undulated flight.

(7) Refit the spare bulb filaments in their stowages and replace the smoke goggles in their respective position.

(8) Reposition the Third crew member's seat, so that the seat is stowed in the leg well access at the Third crew member's station.

SLIDING STOWAGE - INSPECTION/CHECK

1. General (Ref. Fig. 601)

The sliding stowage assembly is located on channel rails under the 3rd Crew Member's table. The assembly which houses a number of stowage compartments, is retained in the closed position by a roller catch. To complete this inspection/check it is necessary to withdraw the stowage assembly on the rails.

2. Inspection/Check

A. Inspect all parts of the stowage assembly for cleanliness, damage and security of attachment.

B. Check

(1) Check that all compartment doors open and close satisfactorily, and that the doors can be retained in the close position.

(2) Check that the equipment trays in each compartment can be withdrawn, and repositioned.

(3) Check that the sliding stowage assembly is held by the roller catch, in both the closed and withdrawn positions, sufficiently to prevent the stowage moving during undulating flight.

(4) Remove and dispose of unserviceable items, from the filament stowages; refill the stowages with serviceable filaments.

NOTE: Refer to the appropriate spare filament table.

(5) Check the smoke goggles stowage for contents.

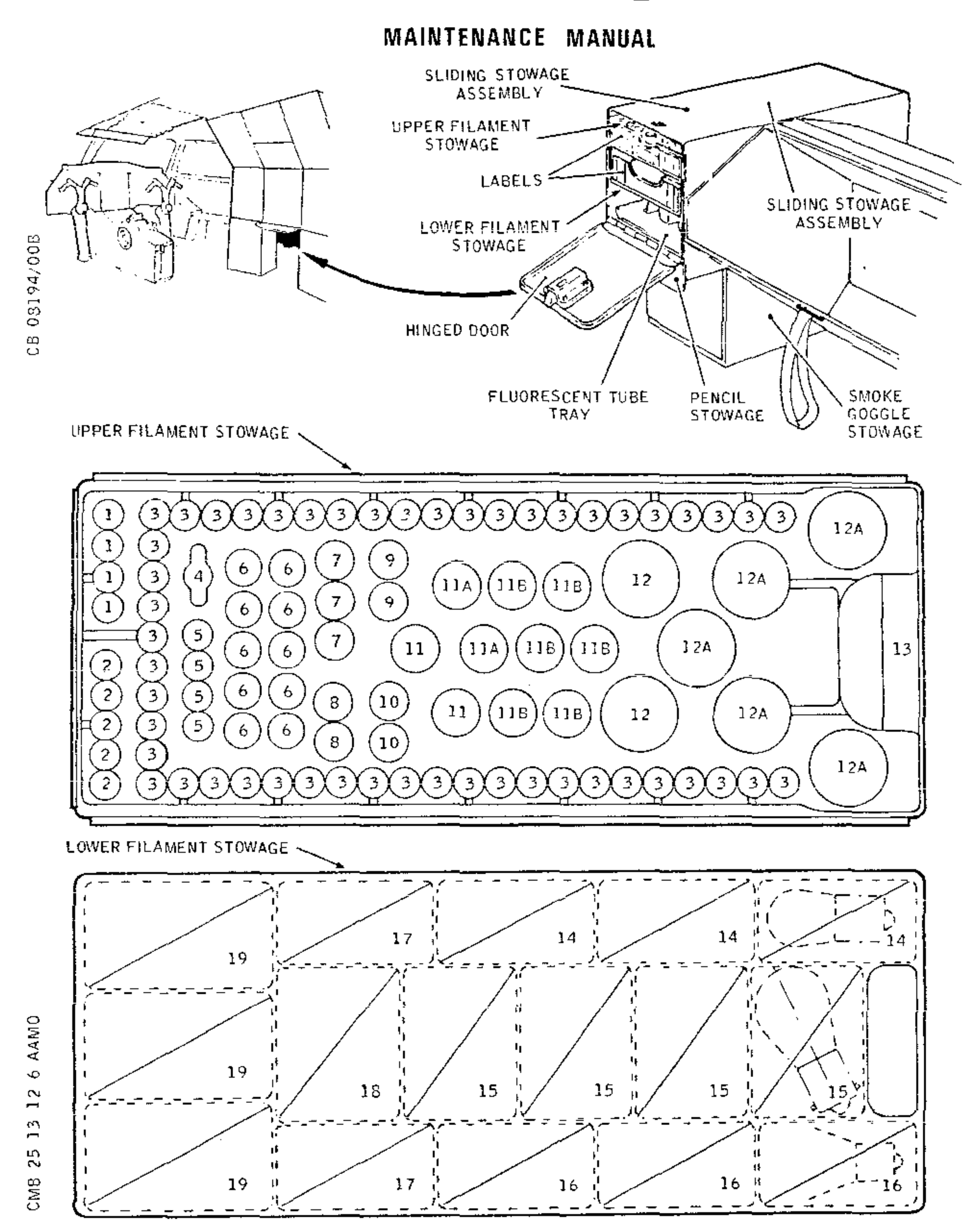
NOTE: The stowage should contain one pair of smoke goggles.

IDENT No.	BAS/ CODE No.	QTY	VOLT	AMP	WATT	FINISH	DESCRIPTION
1	7942	4	28	0.02	0.56	Clear	Micro midget filament lamp, flange base.
2	7906	5	28	0.04	1.0	Clear	Micro midget

IDENT No.	BAS/ CODE No.	QTY	VOLT	AMP	WATT	FINISH	DESCRIPTION
							filament lamp
3	7905	50	28	0.04	1.23	Clear	Filament bulb for caption lights
4	7928	1	28	0.4	-	-	Non-magnetic panel lamp.
5	7940	4	28	0.02	-	-	Filament bulb type T1
6	7918	10	28	0.11	2.8	-	Filament lamp
7	7919	3	28	0.11	2.8	-	Filament lamp
8	7931	2	28	0.17	4.8	-	Aircraft filament lamp
9	7925	2	28	0.30	8.4	Clear	Filament lamp
10	7916	2	28	0.08		Clear	Filament lamp
11	66-705-326	2	-	-	-	-	Lamp filament unit sub-minature.
11A	9275	2	6.3	-	1.6	-	Lamp filament, minature bayonet base.
11B	8765	6	6	0.2	1.2	-	Lamp filament, midget groove ace socket.
12	7927	2	28	0.45	11.0	-	Reading lamp filament
12A	Spare	5	-	-	-	-	-
13	7914	1	28	1.15	-	Clear	Aircraft filament bulb
14	8738	3	6	0.51	-	-	Minature filament lamp (single contact, bayonet base).
15	8777	4	28	0.57	1.4	Silvered	Filament lamp
16	7926	3	28	0.67	19.0	Frosted	Filament lamp

IDENT No.	BAS/ CODE No.	QTY	VOLT	AMP	WATT	FINISH	DESCRIPTION
17	Spare	-	-	-	-	-	-
18	Spare	-	-	-	-	-	-
19	Spare	-	-	-	-	-	-
-	7937-01	3	-	-	8.0	Warm) White)	Fluorescent tube

Spare Filament Identification
Table 601



Stowage Location
Figure 601

R

THIRD CREW MEMBER TABLE ASSEMBLY - REMOVAL/INSTALLATION

1. General

The table assembly is situated at the 3CM station, above the leg well. The position of the table is adjustable and it is locked in any one of three positions by a cable operated pin which locates in holes in the outer slide. Stops are provided to prevent the table being pulled from its slides or causing damage if the table is pushed too far in the stowed position.

2. Table Assembly

A. Remove

(1) Manually move the 3CM seat within the white band on the trolley, then move the seat forward to clear the forward edge of the table assembly.

(2) Pull and hold the release ring which is situated under the table assembly on the LH side at the front. Pull the table until the release catch butts against the stop.

(3) Trip the release catch situated under the table assembly on the LH side at the rear; remove the table.

B. Install

(1) Ensure that the table assembly is undamaged, and that the inner and outer slides are secure and clear. Check that the cable assembly and release catch operate freely.

(2) Position the table assembly so that the inner and outer slides mate. Trip the release catch and push the table assembly until the locking pin butts against the outer slide.

(3) Pull and hold the release ring, then push the table assembly to the stowed position.

(4) Operate the table assembly to ensure free movement, and that the locking pin engages at the three locked positions.

(5) Move the table to the stowed position.

(6) Return the 3CM seat to its original position.

CABIN AND VESTIBULE AMENITIES - DESCRIPTION AND OPERATION

1. General (Ref. Fig.001 and 002)

There are two passenger cabins and three vestibule areas in the aircraft. The passenger cabins, which are carpeted, contain overhead stowage bins along their entire length, on each side, for the stowage of personal items by the passengers. Various services required by the passengers are located on service unit panels and speaker/sign panels located on an overhead surface immediately beneath the stowage bins. Where spaces between the panels occur, infill panels of various lengths are used to provide a continuity of surface. The positions of all the overhead panels can be adjusted longitudinally in the cabins so that they can be correctly positioned with regard to the seat units in all seating configurations. The vestibules, forming passenger entrance and service areas, have a polyvinylchloride (PVC) floor covering and contain bulkhead-mounted vacuum cleaner sockets.

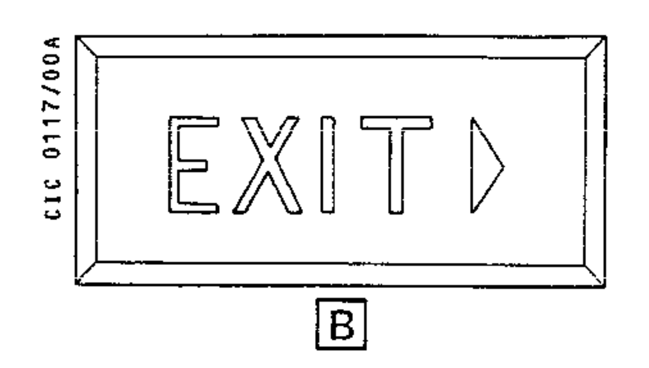
2. Carpets and Floor Covering (Ref. Fig. 001)

The passenger cabin floors are covered with panels of fitted
R B flame-resistant, carpet with the pilelay facing aft.
The stretched carpet is secured with double sided adhesive tape and the edges are held by seat rail covers and carpet trapping strips. Any untrapped carpet is lightly coated with adhesive to prevent fraying. Extruded plastic covers which push into the seat rail slots trap the nap of the carpet either side of each rail. There are five separate carpet access flaps in the aircraft. Two of these, give access to the nose undercarriage emergency release (221RF) and the main landing gear emergency release and observation access (233BF), are secured as indicated on the illustration. The other three which are, the nose undercarriage observation access (221YF) and access panels (223FF and 231HF) are secured using double sided tape. The carpet flaps fold back when access is required.

The vestibule floors are covered with a decorative flame-
R B resistant PVC on a woven fabric base, over a foam underlay. The PVC is tailored to the vestibule area and is held in position with double sided adhesive tape, carpet trapping strips and threshold plates. An escutcheon plate finishes the edge of the PVC at the tread plate of each doorway.

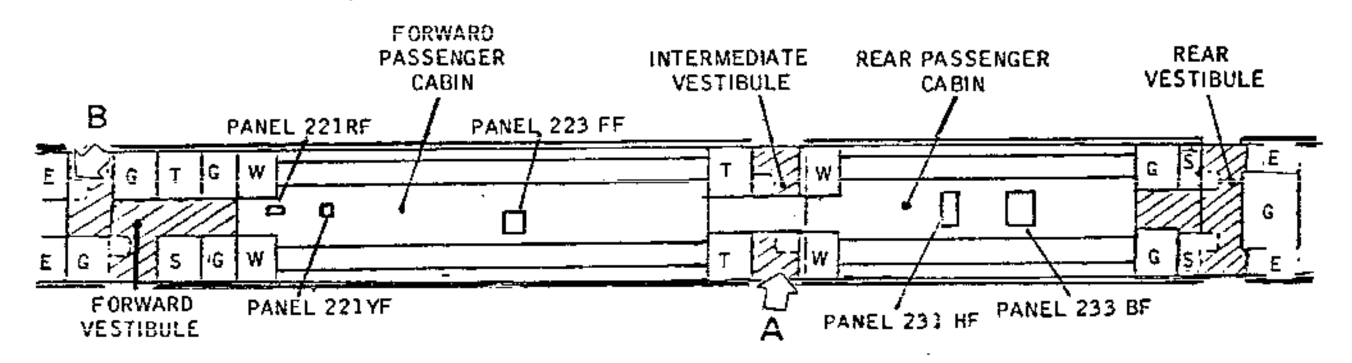
Plates are positioned over each floor expansion joint to ensure that carpet does not become damaged in these areas.

3. Overhead Stowage Bins (Ref. Fig. 002)

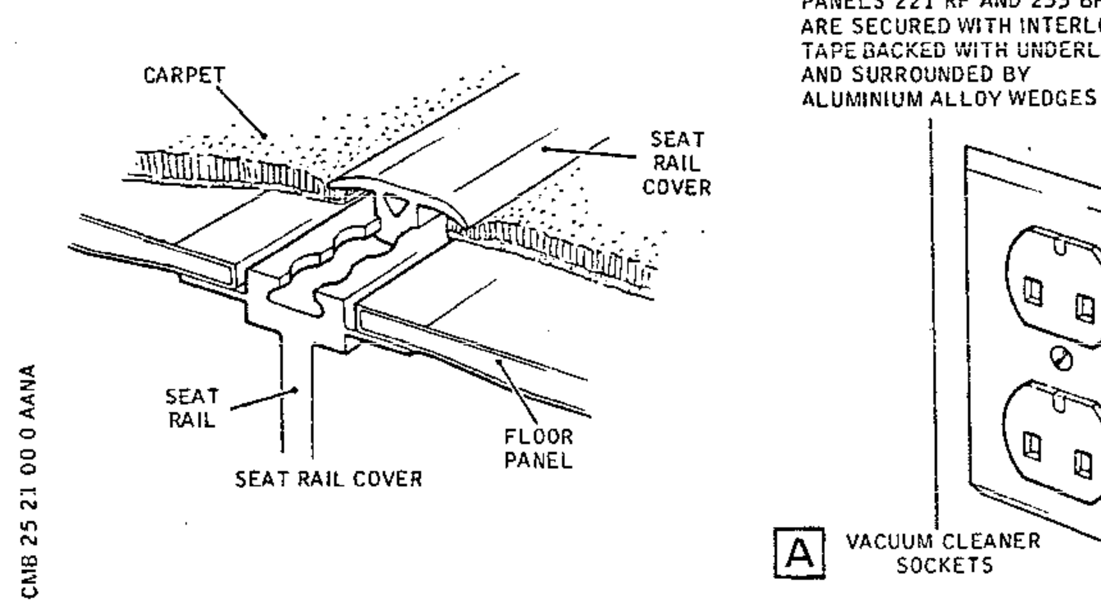


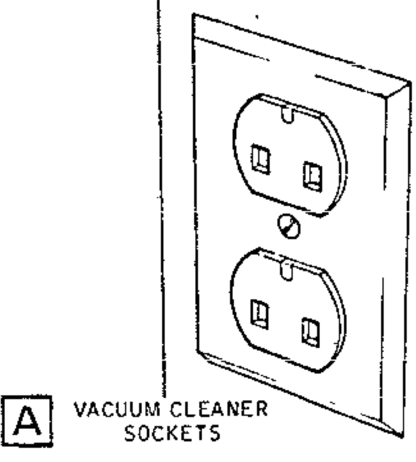
AREAS WITH PVC FLOORCOVERING

AREAS WITH CARPET



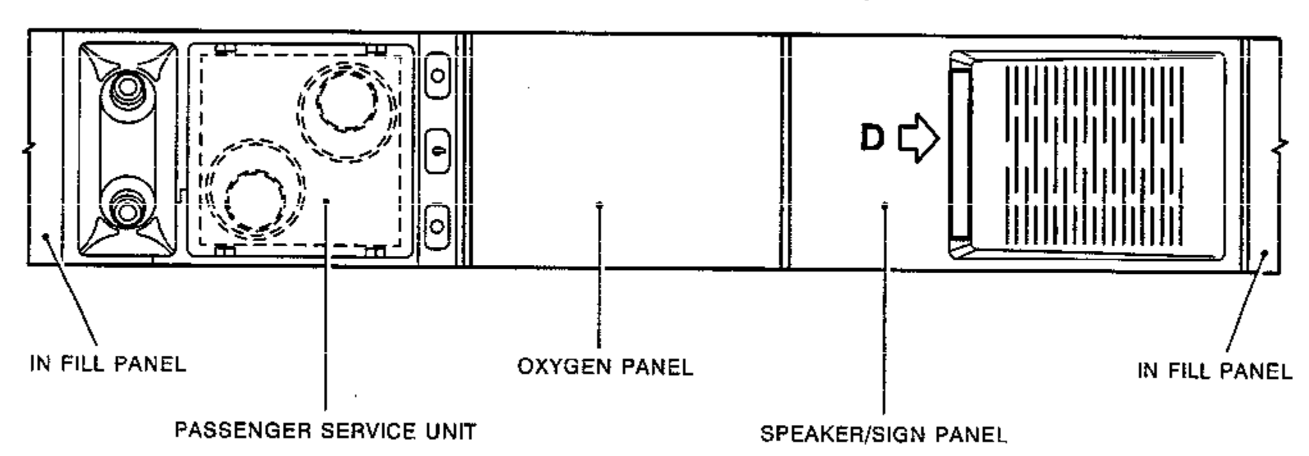
NOTE:
CARPET FLAPS IN AREA OF PANELS 221 RF AND 233 BF ARE SECURED WITH INTERLOCKING TAPE BACKED WITH UNDERLAY AND SURROUNDED BY ALUMINIUM ALLOY WEDGES

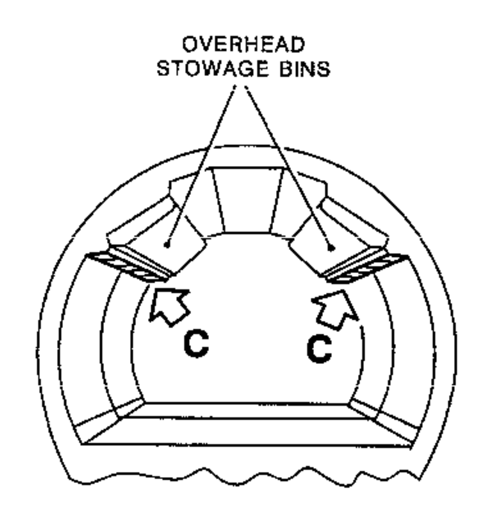


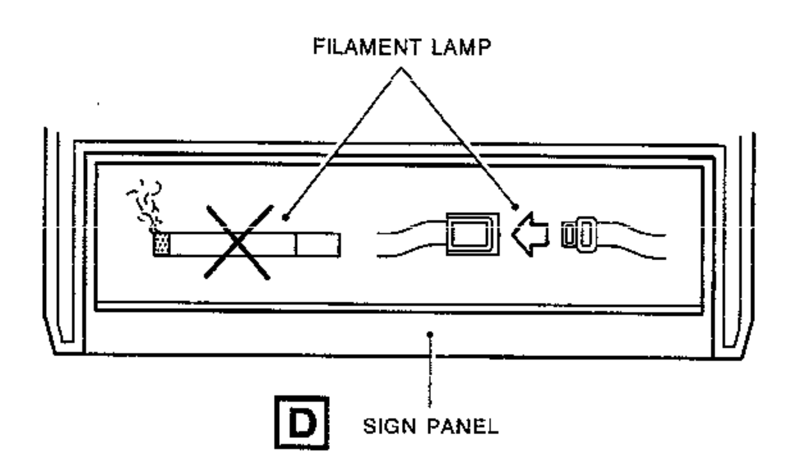


Cabin and Vestibule Amenities (Sheet 1 of 2)
Figure 001

B





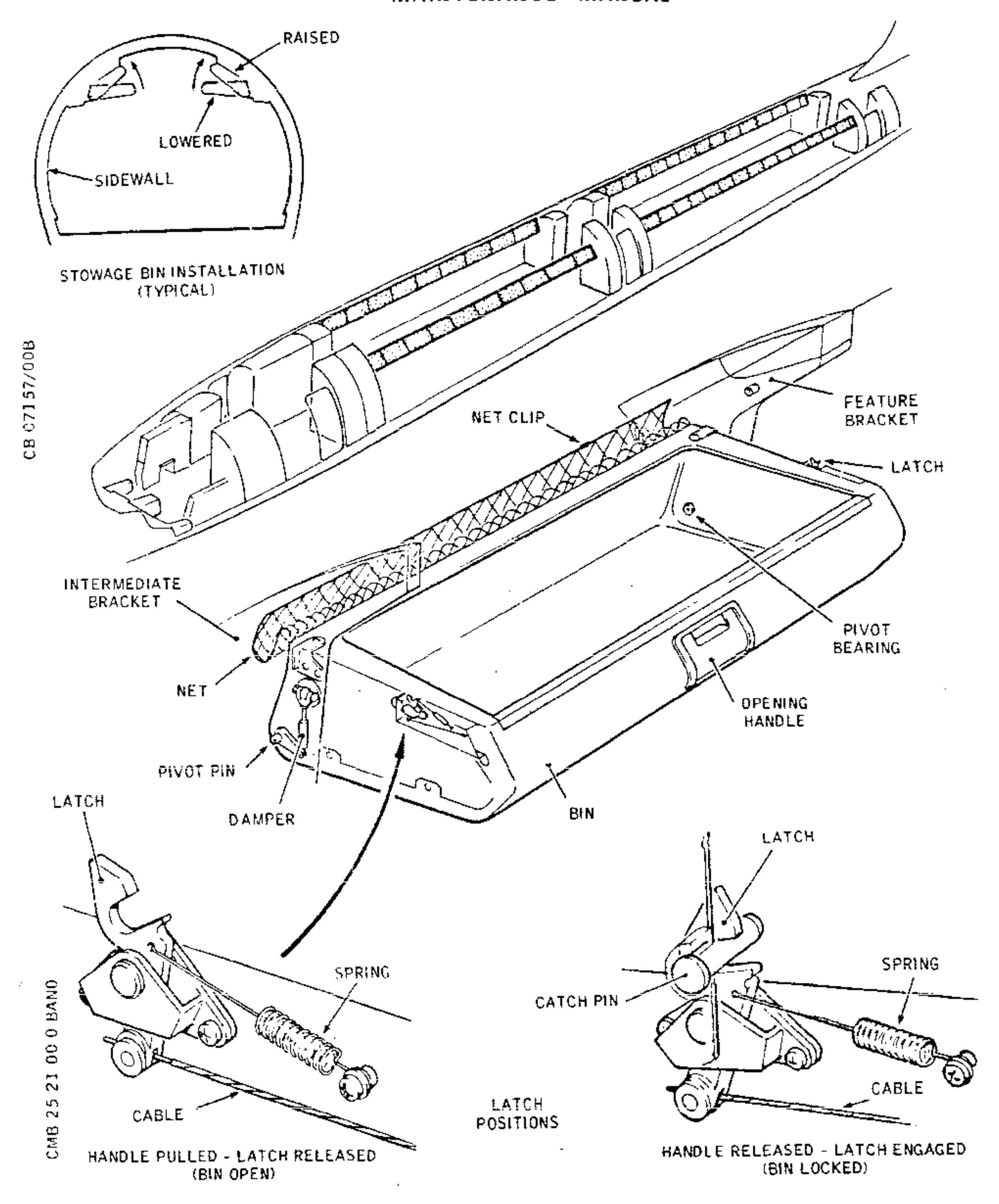


PRINTED IN ENGLAND

CMB 25 21 00 0 AANB 00

RB

Cabin and Vestibule Amenities (Sheet 2 of 2)
Figure 001



Overhead Stowage Bins
Figure 002

R

The overhead stowage bins are rigid lightweight containers of fibreglass sandwich construction with metal pivot centres, hydraulic dampers and latches pivoted to the end panels. A moulded plastic handle in the centre of the bin is connected to the latches by cables. At the back of the bin a net closes off the space between the bin and the sidewall and prevents the dislodgement of magazines or small articles when the bin is raised.

The arrangement of the bins in the aircraft is governed by the bulkhead positions and the space between feature brackets. Support between bins is given by a small intermediate bracket. Most of these are spaced at regular intervals and accommodate two bins, but some bins can vary in length depending on the seating configuration. The difference in length between them is large enough to eliminate the possibility of fitting a bin in the wrong position.

At the outer ends of each pair of bins, the mechanism is covered by a plastic fairing which gives the bins a left-hand and right-hand fitting. Any bin can be interchanged with any other bin of corresponding length and hand.

Some of the stowage bins on the left-hand side of the aircraft incorporate a cabin temperature sensor unit. Each bin housing a sensor unit, is identified by a small grille on the bin bottom surface and these bins can only be interchanged with bins of similar type.

To open the bin, place the fingers in the recess in the handle and press with the thumb on the lower edge. This action releases the latches and allows the bin to open. The rate of descent is regulated by the hydraulic dampers which buffer the weight when the bin is loaded with baggage. To close the bin, push upwards until the bin latches in the closed position. The maximum allowable baggage weight is stated on the bin placard located inside at the bin rear (Ref.11-35-00).

R 4. Passenger Service Units (Ref. Fig. 001)

The passenger service units are installed in panels directly below the overhead stowage bins and are arranged so that each unit panel is aligned with each passenger seat unit. Each panel houses a fresh air manifold which has two controllable louvre outlets (Ref.21-24-00), two reading light assemblies with associated push-button switches, a push-button steward call switch and an oxygen mask stowage (Ref.35-21-00) which also has a therapeutic oxygen point.

Each panel has quick-release couplings to its services to

facilitate removal and installation. The panel fasteners lock on the outboard support rail and are accessible only when the air vane and fairing is lowered (Ref. 25-22-21). Panels can be positioned to suit any seating configuration.

5. Speaker/Sign Panels (Ref. Fig. 001)

Speakers and sign displays are installed in panels at intervals along the aircraft cabin below the overhead stowage bins and in line with the passenger service units. The panels are used for broadcasts from a crew member or hostess. Each unit comprises of a panel, a speaker which is secured by screws to the sloping surface, two filament lamps positioned behind the NO SMOKING and FASTEN SEAT BELT signs, and the speaker transformer positioned at the forward end.

Excess cable is stored on the upper surface of the filament lamps cover by means of hook and loop tape.

The panels on the left-hand and right-hand side of the aircraft are similar but handed.

6. Infill Panels (Ref. Fig. 001)

RB There are four types of infill panels, 6 in (152.44 mm), 7 in
RB (177.8 mm), 8 in (203.2 mm) and 11 in (279.4 mm) and they are used to fill the vacant spaces on the overhead surfaces beneath the stowage bins.

7. Vacuum Cleaner Supplies (Ref. Fig. 001)

A 115V a.c. ground power supply feeds two sockets wired in a two-pole three-wire arrangement situated in the intermediate vestibule.

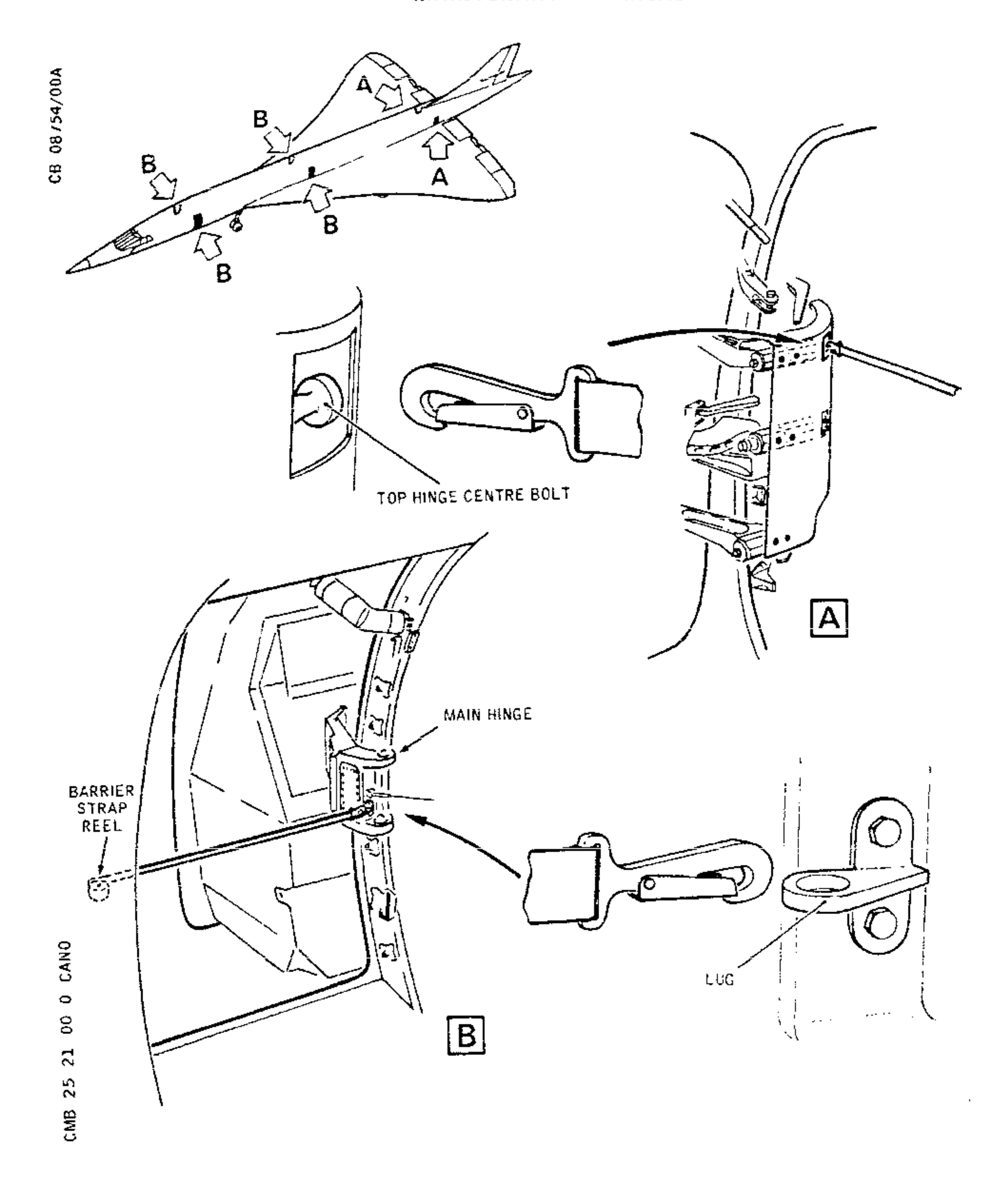
8. Doorway Barrier Straps (Ref. Fig. 003)

A spring-loaded, retractable strap fitted to each doorway can be extended across the doorway and clipped to either a lug on the door main hinge arm (forward and intermediate doors) or an attachment on the top hinge centre bolt (rear doors).

9. Exit Signs (Ref. Fig. 001)

A self-illuminated EXIT sign in the forward vestibule, fitted to the right-hand forward bulkhead, indicates the adjacent service door. The sign is filled with mildly radio-active Tritium gas, giving an illumination strength of 400 micro-lamberts, and has a finite life of 6 years.

10. Carry-Cot Support Tables



Doorway Barrier Straps
Figure 003

Threaded inserts are located in bulkheads, at the following positions, to take a carry-cot support table:

The rear face of toilet No. 1.
The rear face of the forward vestibule amenity stowage.
The rear face of No. 3 and No. 4 galleys.
The rear face of the intermediate vestibule LH and RH amenity stowages.

Two carry-cot support tables are supplied as loose equipment to be fitted as required.

11. Magazine Stowages - Mod 25C506

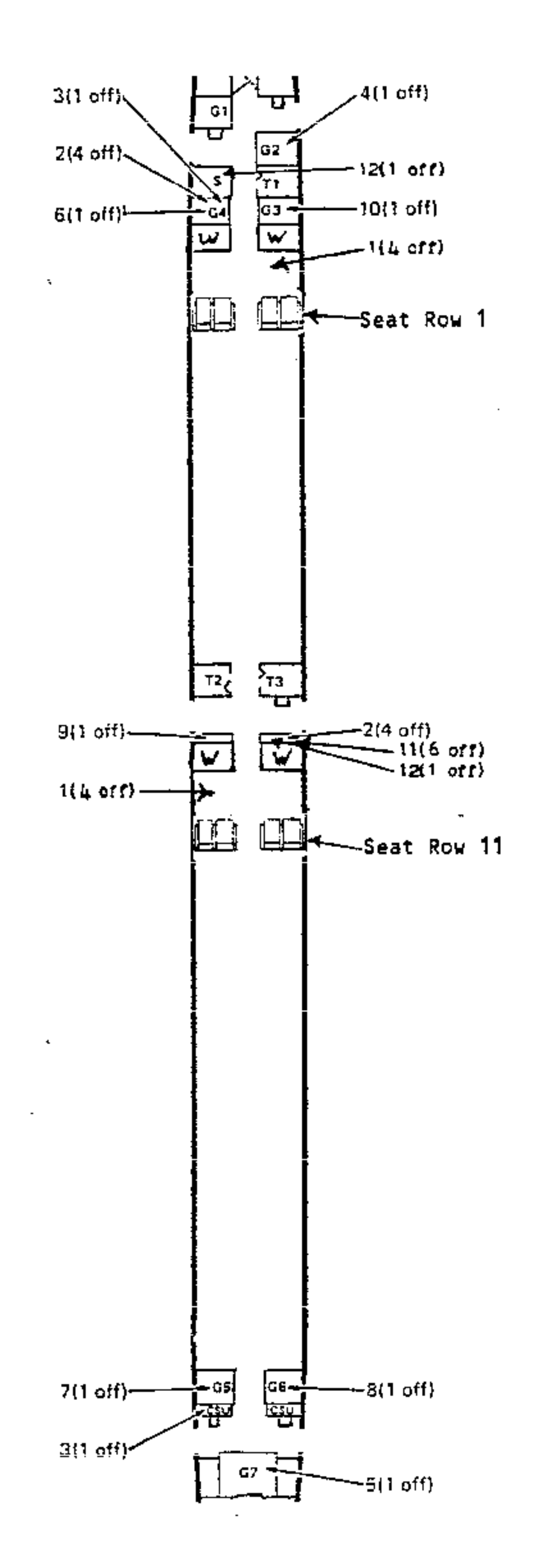
Magazine stowages (P/N's 1-54958 to 61) are located to threaded inserts in furnished panels. These furnished panels are to be found at the following locations:-

Forward bulkhead toilet No2 (P/N 0-55011).
Forward bulkhead toilet No3 (P/N 0-55010).
Forward bulkhead galley No5 (P/N 0-55013).
Forward bulkhead galley No6 (P/N 0-55012).

12. Loose Equipment - Passenger Cabin (Ref. Figure 004)

Loose equipment is stowed at various locations throughout the aircraft passenger cabin. Figure 004 details these items of loose equipment together with part number and quantity. The British Airways source document is drawing 2-52227.

One Trolley top tray (item 3) is stowed below the grille in Galley No. 4 and the other Trolley top tray is stowed in the lower stowage of the CSU behind Galley No. 5. This item is Catering purchased. Four plug-in-tables are stowed above the grille in Galley No. 4.



1	2-54554-8	Foot Hassock	8
2	2000-10-015	Plug-in Table	8
3	EM 1071	Trolley Top Tray	2
4	12192	Waste Bin	1
5	12193	Waste Bin	1
6	13051	Waste Bin	1
7	0BA 20922	Work Top	1
8	0BA 20921	Work Top	1
9	0BA 20920	Work Top	1
10	0BA 20919	Work Top	1
11	501848-405-34-1849	Seat Belt Extension	6
12	501310-405	Demo Seat Belt	2

G	=	Galley
T	=	Toilet
W	=	Wardrobe

Loose Equipment (Passenger Cabin)
Figure 004

CIC 0118/00A

CMB 25 21 00 0 DAND

PRINTED IN ENGLAND

B

VESTIBULE CEILING PANELS - REMOVAL/INSTALLATION

WARNING: UTMOST CLEANLINESS MUST BE OBSERVED WHEN HANDLING OXYGEN EQUIPMENT. IT IS ESSENTIAL THAT THE RELEVANT OXYGEN SAFETY WARNINGS, DETAILED IN 35-00-00, ARE COMPLIED WITH.

CAUTION: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

HANDLE CEILING PANELS WITH CARE TO AVOID MARKING OR SCRATCHING THE DECORATIVE FINISH.

1. General

The securing arrangements for the forward, centre and rear vestibule ceiling panels are generally similar. Each vestibule ceiling panel houses one or more light fittings and an oxygen mask stowage. The EXIT direction sign at each end of the forward and rear passenger compartments must be removed before removing the adjacent ceiling panel. The forward vestibule ceiling panel is in two sections and the centre and rear vestibule ceiling panels are in one section.

2. Ceiling Panels (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Adhesive, Boscroprene 2402 (Ref. 20-30-00, No. 328)	-

B. Prepare to Remove

(1) Electrically isolate the vestibule ceiling lanterns and the EXIT sign lights by tripping the following circuit breakers. Fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
FLT DECK ROOF LTS SUP	14-215	L232	C11
CABIN NIGHT LTS SUP	5-213	L455	D19

Printed in England

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
CABIN EMER LTS BAT CHG & EXIT SIGN SUP	1-213	L831	Q22

C. Remove Ceiling Panel

(1) Remove the oxygen mask stowage (Ref. 35-21-15, Removal/Installation).

(2) Remove the vestibule lantern(s) (Ref. 33-23-00, Removal/Installation).

(3) Remove the vestibule curtain from the curtain runner on the ceiling panel.

(4) Remove the EXIT direction sign (Ref.33-51-00, Removal/Installation).

(5) Carefully prise the capping strips off the clamp strips securing the fore-and-aft edges of the ceiling panel.

NOTE: The rear vestibule ceiling panel has a transverse capping strip and clamp strip securing the edge of the panel adjacent No. 7 galley.

(6) Undo the quick-release fasteners securing the clamp strips and ceiling panel to the roof support members. Remove the ceiling panel.

D. Install Ceiling Panel.

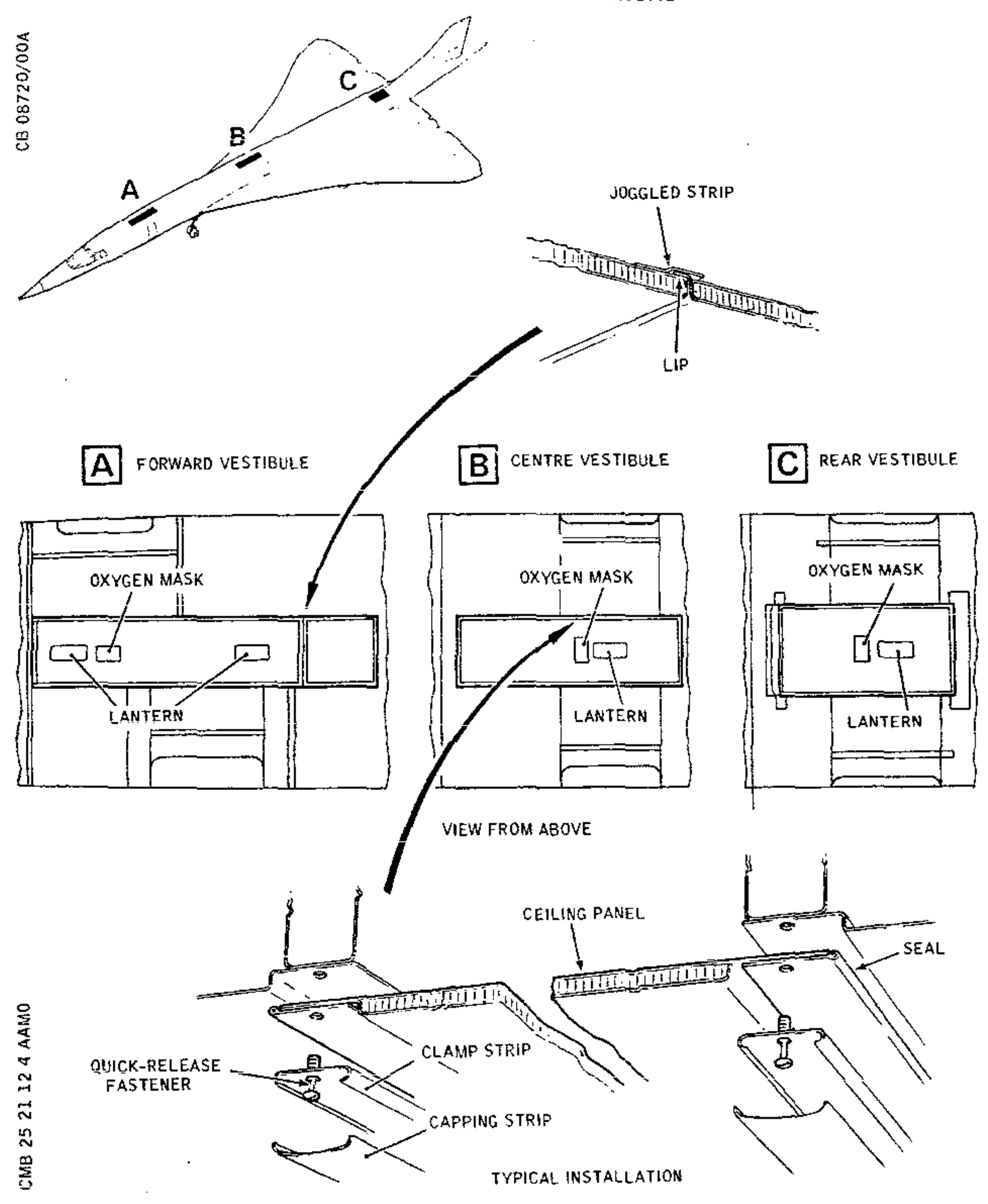
(1) Observe the electrical and oxygen safety precautions and warnings.

(2) Inspect the seals on the edges of the ceiling panels. Renew any damaged seals.

NOTE: Retain a new seal in position with adhesive.

(3) Position the ceiling panel, fit the clamp strips and tighten the quick-release fasteners.

NOTE: The rear vestibule ceiling panel has a transverse clamp strip and capping strip to secure



Vestibule Ceiling Panels
Figure 401

the edge of the panel adjacent No. 7 galley.

(4) Position the capping strips and clip them over the clamp strips.

(5) Install the EXIT direction sign (Ref.33-51-00, Removal/Installation).

(6) Install the vestibule lantern(s)(Ref. 33-23-00, Removal/Installation).

(7) Install the oxygen mask stowage (Ref. 35-21-15, Removal/Installation).

(8) Install the vestibule curtains.

E. Conclusion.

(1) Reset the circuit breakers previously tripped.

(2) Test the oxygen mask (Ref.35-21-15, Adjustment/Test).

(3) Test the EXIT direction sign (Ref. 33-51-00, Adjustment/Test).

(4) Test the vestibule lantern(s) (Ref. 32-23-00, Adjustment/Test).

HEAD FLAP ASSEMBLY - REMOVAL/INSTALLATION

WARNING: WEAR SAFETY HARNESS OR USE AN EXTERNAL STAIRWAY WHEN REMOVING AND INSTALLING HEAD FLAP FROM THE FORWARD VESTIBULE.

1. General

Two head flaps are located in each of the forward and the intermediate vestibules, one above the passenger door surround and the other above the service door surround. Each flap incorporates two spring-loaded end caps, which form the axis of the flap. The flap is retained in the near vertical positon by the closed door, to provide continuity of the furnishing trim. When the door is opened the flap is allowed to move upward under spring loading, to provide passenger protection and additional head room.

After SB 52-006 02   For A/C 001-007,

A viewing panel in each of the head flaps allows a visual check to ensure that the door is locked, should a door warning caption illuminate during flight.

2. Head Flap Assembly

A. Remove

(1) Open the adjoining door.

(2) Remove the furnishing trim on the left-hand and the right-hand side of the door surround to gain access to the flap and caps:

(a) Remove the pan-head and hexagon head bolts securing the covers; remove the covers.

(b) Remove the pan-head bolts securing the furnishing surrounds; remove the surrounds.

NOTE: The bolt heads are accessible through recesses in insulation blocks.

B. Installation

NOTE: Hexagon head bolts are used where it is impracticable to use a screwdriver.

(1) With the adjoining door open, position the head flap.

Printed in England

(2) Tension the spring and secure each end cap:

(a) Turn the end cap through four complete turns in a direction to tension the spring, so that the flap is retained horizontally.

(b) Align the bolt holes in the end cap with those in the door surround furnishing trim: secure the cap with four washers and bolts.

(c) Hinge the flap downward by hand then allow it to return to a static position; check that the flap is retained horizontally.

(3) Install the furnishing trim on the left-hand and the right-hand side of the door surround.

(a) Fit the washers and pan-head bolts securing the furnishing surround.

(b) Fit the washers, pan-head bolts and hexagon head bolts securing the covers.

(4) Gently close the door and ensure that there is continuity between the flap and the adjoining furnishing trim. Open the door fully and ensure that the flap is raised, by spring loading, to the horizontal.

HEAD FLAP ASSEMBLY - APPROVED REPAIR

1. General

The head flap, located above the forward passenger doorway in the forward vestibule, forms a continuity of furnishing trim on the upper part of the doorway surround area. Damage to the reinforcing channels on the inboard side of the flap assembly, affecting flap rigidity, can be rectified by removing the existing trim material and fibre glass insulation and substituting the existing channels with channels of heavier gauge material. The repair can only be accomplished after removal of the head flap from the forward vestibule.

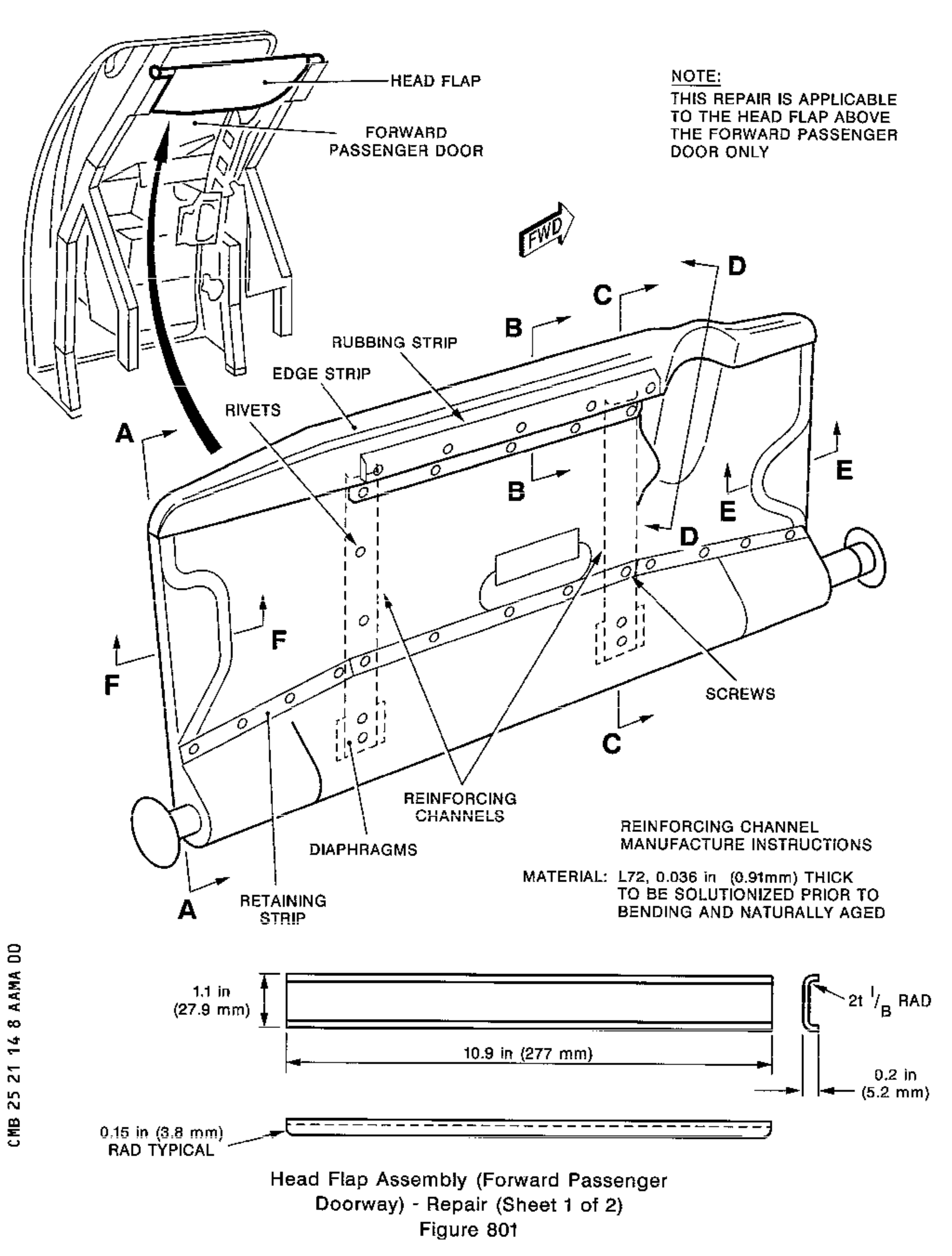
2. Reinforcing Channel Repair (Ref. Fig. 801)

A. Materials and Equipment

DESCRIPTION	PART NO.
Abrasive pads (Ref. 20-30-00, No.458)	-
Cleaning solvent (Ref. 20-30-00, No.473)	-
Aluminium alloy L72 0.036 in (0.91 mm) thick (For the manufacture of reinforcing channel)	
Adhesive (Ref. 20-25-14)	-
Adhesive (Ref. 20-25-15)	-
Fibre glass insulation (Ref. 20-30-00, No.135, 137)	-
Nomex paper (Ref. 20-30-00, No.125)	-
Vinyl-coated fabric trim material (Ref. 20-30-00, No.194)	-

B. Prepare Head Flap

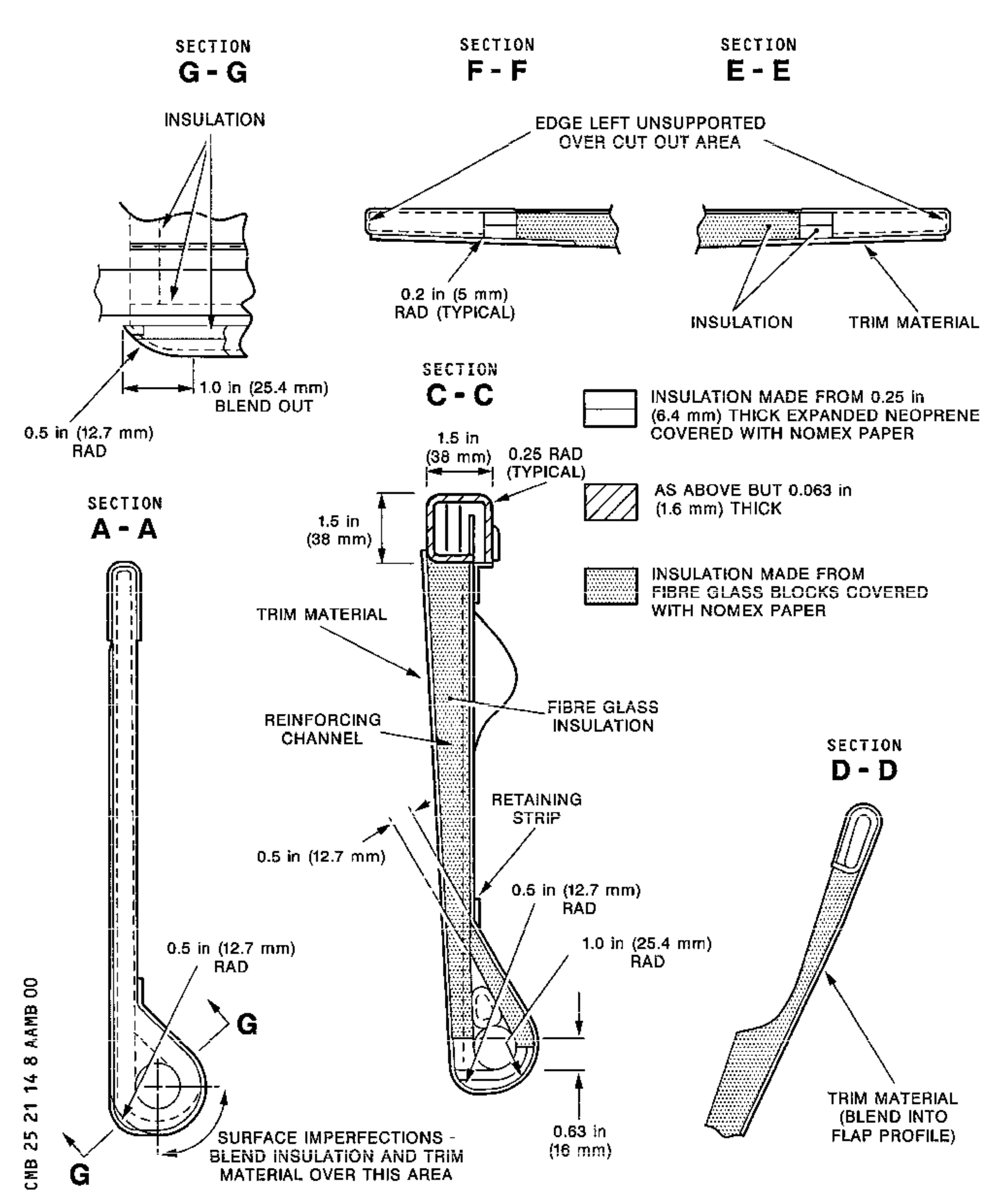
(1) Remove the head flap from the aircraft (Ref. 25-21-14, Removal/Installation).



CMB 25 21 14 8 AAMA 00

PRINTED IN ENGLAND

Head Flap Assembly (Forward Passenger Doorway) - Repair (Sheet 1 of 2)
Figure 801



Head Flap Assembly (Forward Passenger Doorway) - Repair (Sheet 2 of 2)
Figure 801

(2) Remove the screws securing the rubbing strip and the retaining strips; remove the strips.

(3) Cut away all the furnishing trim material and the glass fibre insulation to give access to the two reinforcing channels.

(4) Drill out the rivets securing each of the channels to the flap; carefully remove the channels, taking care not to damage the flap or the diaphragms.

(5) Remove and retain the anchor nut from each of the old channels.

(6) Abrade the flap surface in the area of the channels, remove all foreign particles and thoroughly clean metallic parts with a clean cloth moistened with solvent BAC M302.

C. Repair (Ref. Fig. 801)

(1) Manufacture reinforcing channels, cut them to length using the old channels as a template, then apply Alochrome (Ref. 20-24-32) and one coat of epoxy primer (Ref. 20-24-19).

(2) Drill holes in the new reinforcing channels of a similar diameter to match the existing holes in the flap; deburr the holes.

(3) Rivet an anchor nut, previously removed from the old channels, to each of the new channels.

(4) Bond each of the channels in position with adhesive (Ref. 20-25-14), ensuring alignment of the drill and screw holes.

(5) Insert and set the remaining rivets securing each of the reinforcing channels.

D. Restore Furnishing Trim (Ref. Fig. 801)

(1) Secure Nomex paper-covered fibre glass insulation of appropriate thickness to the flap with adhesive (Ref. 20-25-15).

(2) Ensure that the edge support is secure; reapply adhesive (Ref. 20-25-15), where necessary.

(3) Cut new trim material to the required size and secure it to the flap and insulation with adhesive (Ref.

20-25-15).

(4) Position the rubbing strip and the retaining strips on the flap; secure them with 0.375 in (9.5 mm) and 0.44 in (11.2 mm) long screws respectively.

E. Conclusion

(1) Refit the head flap in the aircraft (Ref. 25-21-14, Removal/Installation).

OXYGEN BOX PANEL - REMOVAL/INSTALLATION

WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND THE SURROUNDING AREA CLEAN AND FREE FROM CONTAMINATION (REF. 35-00-00, SERVICING).

1. General

The passenger oxygen mask stowage containers are installed below the passenger luggage-bins, and are arranged so that the masks align with each pair of passenger seats. The containers are handed and contain two and three mask stowages and therapeutic outlets.

The panels on the left and right-hand sides of the aircraft are the same, except that the service attachments are on the outboard sides and therapeutic outlets are on the inboard side. Spacers fitted to prevent any possibility of the adjacent units jamming the oxygen panel door, are at opposite ends of the panel, the short spacer located at the PSU end of the panel.

2. Oxygen Mask Stowage Unit (Ref. Fig. 401)

A. Prepare to remove

(1) Undo the screws securing the air vane fairing: access to the screws is through the air vent slot at each end of fairing. Lower the air vane fairing and remove it (Ref. 25-22-21, Removal/Installation).

(2) Compress the spring clips at the back of the oxygen box panel and lower it from the mounting rail.

B. Remove

(1) Remove the oxygen box panel.

C. Install

NOTE: Refer to IPC Chap. 25-21-20 for location of PSUs in relation to speakers, oxygen and infill panels.

(1) Comply with the Oxygen precautions taken before removal.

(2) Each chassis mounting spring is fitted with a centring device. The bar in this part is designed to locate in the slots in the outboard mounting rail. It is necessary to fit one of the three centring devices available to ensure correct location.

Standard (Central), 0.25 in (6.35 mm) Offset and 0.4 in (10.16 mm) Offset devices are available.

Select and fit a device that having located in the slot, does not deform the spring mounting clip sideways by more than 0.125 in (3.175 mm).

(3) If installing a new unit, check that the correct spacers are fitted to the appropriate end of the box PSU or speaker/infill interface, and ensure a packing washer is fitted between each spacer and the oxygen box.

(4) Ensure panel door cover is securely attached, if cover needs to be replaced proceed as follows:

(a) Remove cover and clean the area to remove any grease and/or residual adhesive.

(b) Fit new appropriately handed cover to the oxygen panel door, using the specified adhesive tape.

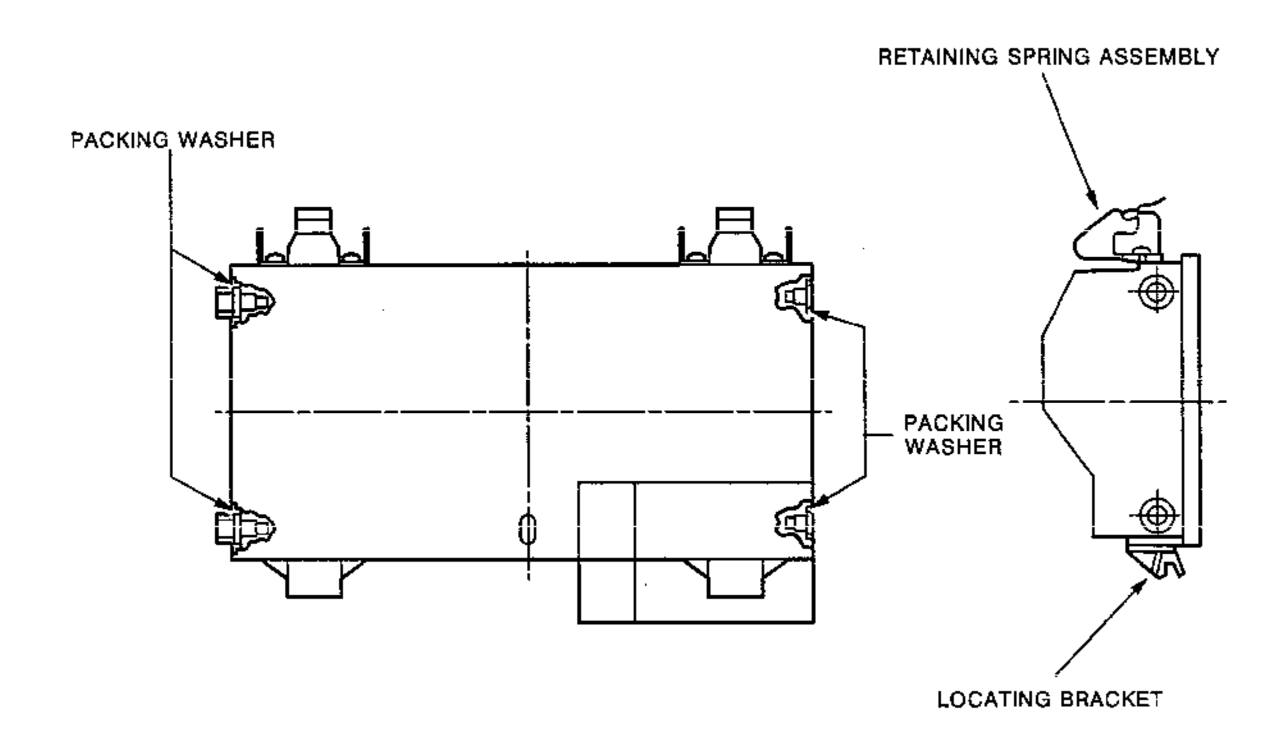
(5) If fitting a replacement oxygen box panel, transfer the brackets, mounting attachments and spacers to the new unit.

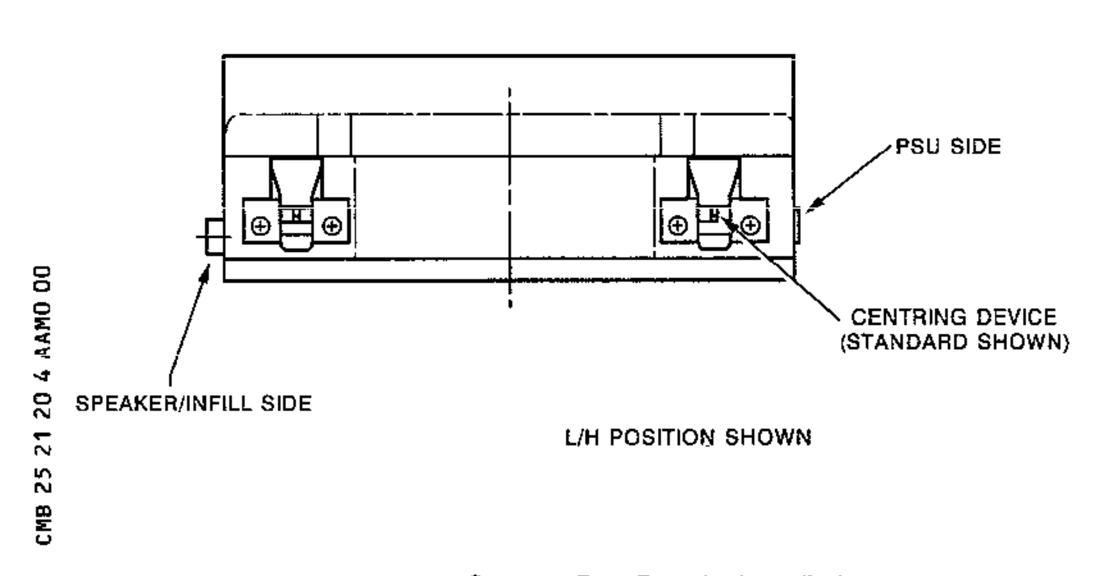
(6) Check that oxygen masks and hoses are neatly stowed, engage the inboard edge of the oxygen box panel on the mounting rail, raise and clip into position. Check that the locating devices in the spring clips are correctly engaged in the locating slots in the support rail.

NOTE: The oxygen box panel should be on a constant level with the PSU, speaker/sign and infill panels. Adjustment, up and down, can be made on the mounting clips and brackets.

(7) Refit the air vane fairing (Ref. 25-22-21, Removal/ Installation).

(8) Clean the panels and adjacent area as necessary with a damp cloth.





Oxygen Box Panel - Installation
Figure 401

PASSENGER SERVICE UNIT - REMOVAL/INSTALLATION

WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND THE SURROUNDING AREA CLEAN AND FREE FROM CONTAMINATION (REF. 35-00-00, SERVICING).

OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The Passenger Service Units (PSU) are installed below the passenger luggage-bins, and are arranged so that a service unit aligns with each pair of passenger seats. Each unit houses a fresh air louvre with two outlets, two reading light assemblies
RB with associated switches and a passenger call switch.

The panels on the left and right-hand sides of the aircraft are similar, except that the service attachments are on the outboard sides.

2. Tools and Equipment Required

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Plastic strap tensioning tool (Panduit Gun)	Type GS2B or GS4H

3. Passenger Service Unit (Ref. Fig. 401)

A. Prepare to Remove

(1) Trip the circuit breakers listed below and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
RH FWD PASS RDG LTS TRANS SUP	13-216	L884	C 8
LH FWD PASS RDG LTS TRANS SUP	13-216	L885	C 9
LH AFT PASS RDG LTS TRANS SUP	13-215	L886	E11
RH AFT PASS RDG LTS TRANS SUP	13-215	L887	E12
PASS CALL SUP	15-216	M78	A22

RB

RB (2) Undo the screws securing the air fairing. Lower the air fairing and remove.

B. Remove

RB (1) Compress the spring clips at the back of the PSU and lower the PSU from the mounting rail.

RB (2) Disconnect the electrical plug and the adjustable fresh air pipe, fit protective caps.

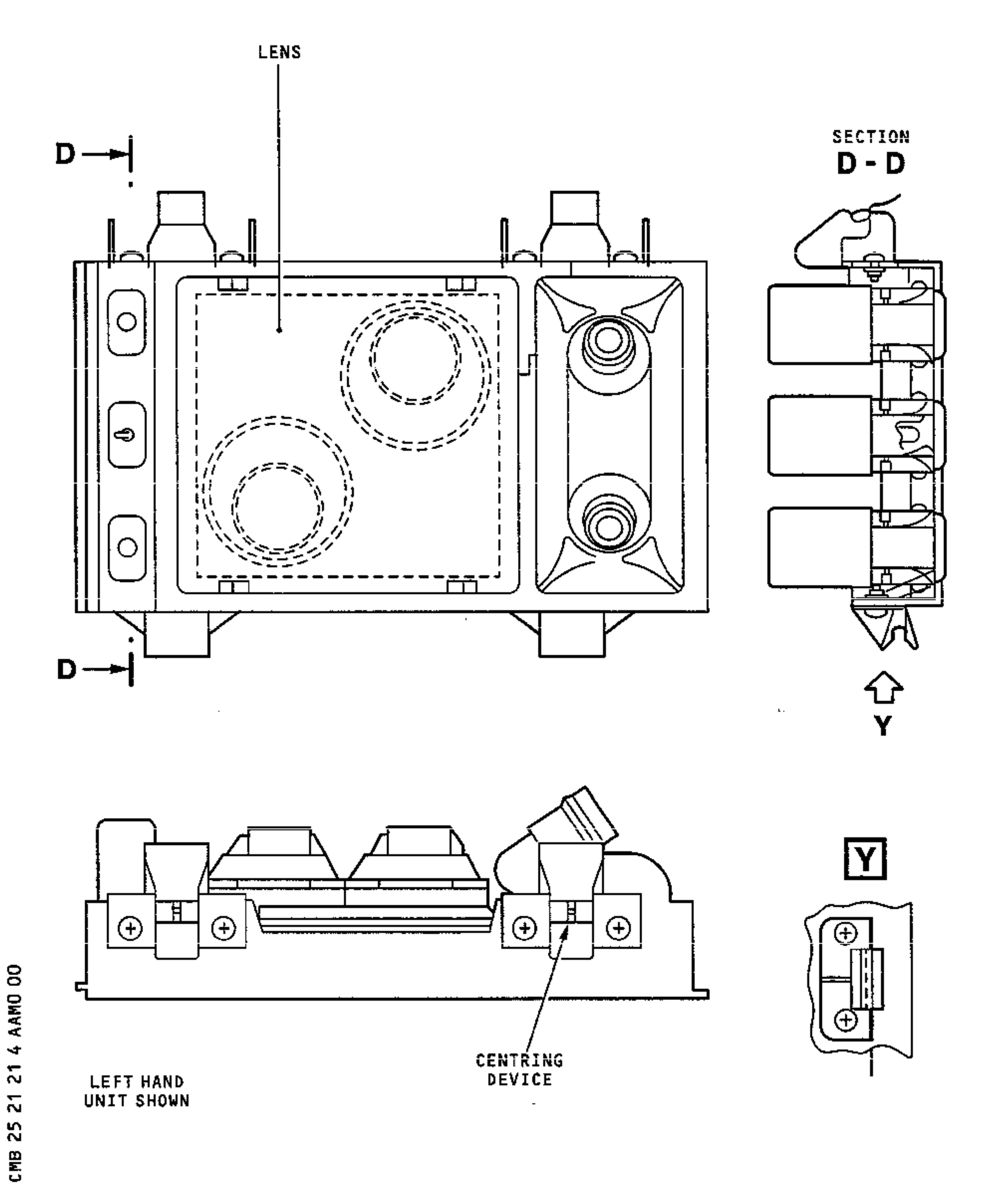
RB (3) Remove the PSU.

C. Install

RB NOTE: Refer to IPC Chap. 25-21-20 for location of PSU's
RB in relation to Speaker, Oxygen and Infill Panels.

RB

RB (1) Comply with the oxygen and electrical safety precautions taken before removal.



RB

Passenger Service Unit - Installation
Figure 401

RB (2) Each chassis mounting spring is fitted with a centring device. The bar in this part is designed to locate in the slots in the outboard mounting rail. It is necessary to fit one of the three centring devices available to ensure correct location.

RB Standard (Central), 0.25 in (6.35 mm) Offset and 0.4 in (10.16 mm) Offset devices are available.

RB Select and fit a device that having located in the slot, does not deform the sprung mounting clip sideways by more than 0.125 in (3.175 mm).

(3) Hold the PSU in position. Remove the protective caps from the air pipe and the electrical plug and connect them to the PSU.

RB (4) Check that all loose cable is neatly stowed, engage the inboard edge of the PSU on the mounting rail, raise and clip it into position. Check that the locating devices in the spring clips are correctly engaged in the locating slots in the support rail.

RB NOTE: The speaker/sign panel should be on a constant level with the PSU, Oxygen and Infill panels. Adjustments, up and down, can be made on the mounting clips and brackets.

RB (5) Remove the circuit breaker safety clips and reset the circuit breakers previously tripped in para. 3.A.(1).

RB (6) Functionally test the passenger reading lights and call systems for satisfactory operation.

RB (7) Refit the air fairing.

RB (8) Clean the panels and adjacent area as necessary with a damp cloth.

OVERHEAD STOWAGE BINS - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General (Ref. Fig. 401)

The overhead stowage bins are of fibreglass sandwich construction and are arranged in pairs between feature brackets. The middle support is carried on a smaller intermediate bracket. Each bin is hinged on two pivot pins and is secured in the closed position by two spring-loaded hooks operated by the handle. Different length bins are removed and installed in the same way. The differences in length are sufficiently great to prevent fitting a bin in the wrong position. At the outer ends of each pair of bins, the mechanism is covered by a plastic fairing which gives the bins a LH and RH fitting. Any bin can be interchanged with any other bin of corresponding length and hand.

Cabin temperature sensors and sampling duct fans are installed in specific overhead stowage bins on the left-hand side of the forward and aft passenger cabins (Ref. 21-60-00, Description and Operation). Such bins, which may be identified by a honeycomb grille fitted to the bottom surface (Ref.Detail A) may only be interchanged with bins of a similar type.

2. Overhead Stowage Bins (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque spanner-range 0-25 lbf in (0 - 0.282 mdaN)	-

B. Prepare to Remove

(1) Grasp the bin by the handle and lower it to the full extent. A slight resistance will be felt from the hydraulic dampers.

(2) Where bin incorporates temperature sensor, trip the appropriate circuit breakers listed below, install C.B safety clips

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
FORWARD CABIN			
FORWARD CABIN TEMP IND	5-213	2D161	D 8
GRP 2 TEMP SELECTOR MANL SUP & CONT	5-213	H992	B 8
GRP 2 TEMP SELECTOR AUTO SUP & CONT	4-213	H1001	E11
GRP 2 SAMPLING DUCT FAN SUP	4-213	H1005	D12
AFT CABIN			
REAR CABIN TEMP IND	15-215	3D161	C 3
GRP 3 TEMP SELECTOR MANL SUP & CONT	15-215	H993	D 3
GRP 4 TEMP SELECTOR MANL SUP & CONT	15-216	H994	C24
GRP 3 TEMP SELECTOR AUTO SUP & CONT	2-213	H1002	G16
GRP 4 TEMP SELECTOR AUTO SUP & CONT	4-213	H1003	B12

(3) Disconnect temperature sensor where applicable.

C. Remove

(1) Release the debris net from the hooks and stow inside the bin.

NOTE: At intermediate brackets, the adjacent bins may require to be lowered in order to gain access to release pivot bolt.

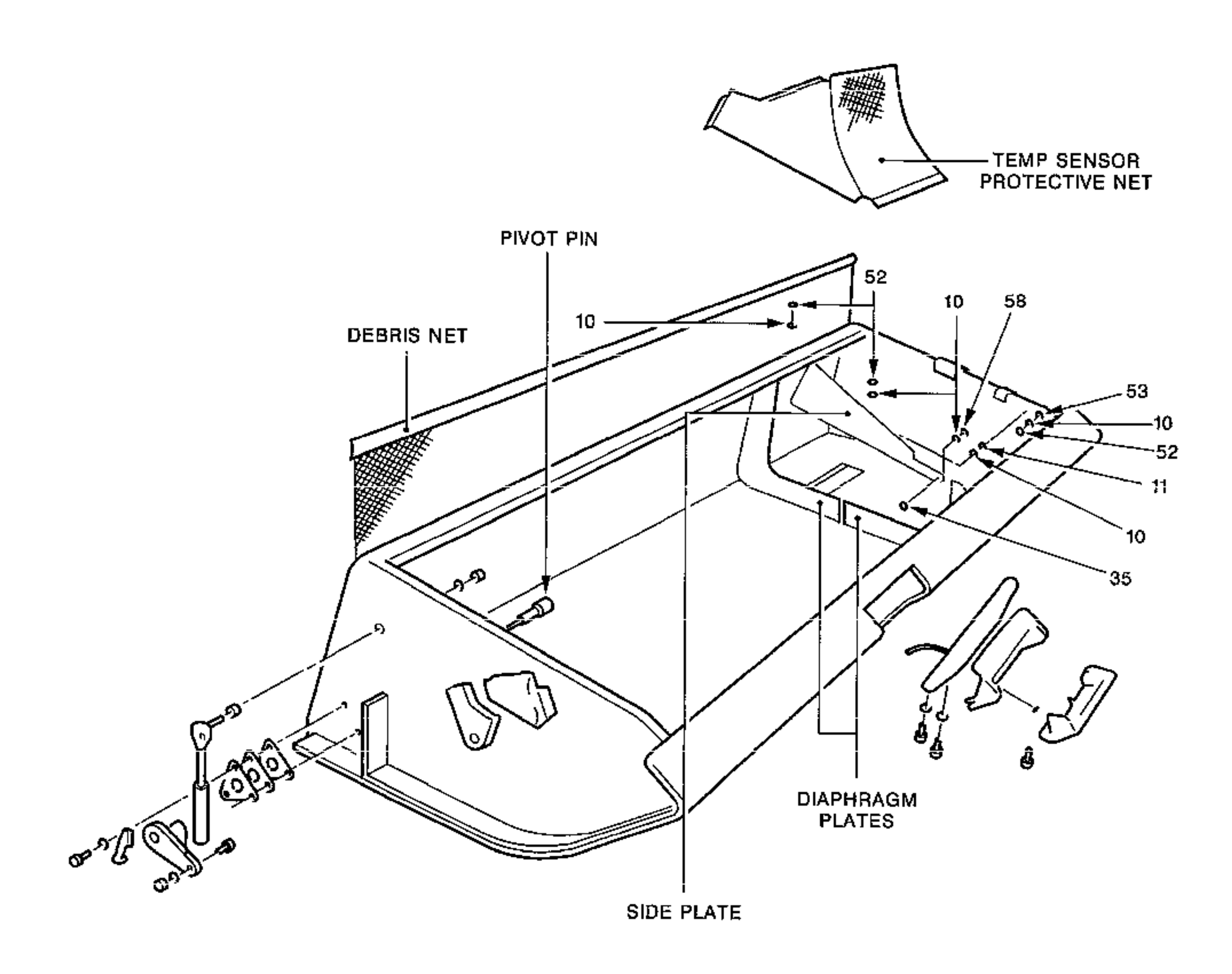
(2) Locate and remove the two nuts and bolts, through the pivot pins.

(3) Support the baggage bins and carefully withdraw the pivot pins.

(4) Remove the baggage bin from the aircraft.

(5) Where applicable remove temperature sensor assembly from bin as follows (identified by honeycomb grill in lower face of bin).

a) Remove nuts, screws and washers where appropriate to remove protective net.



CIC 0119 00A

TYPICAL OVERHEAD STOWAGE BIN
SHOWING TEMP. SENSOR COVER
Figure 401

b) Remove two screws (10) and two washers (11) (ref. fig.401).

c) Remove side plate.

e) Remove four screws (52) and washers (10) securing angle assembly (53) and cover plate (not shown).

f) Remove screws and washers securing diaphragm plates (2 off).

g) Remove screws securing temperature sensors and remove module.

D. Install

NOTE: When a new bin is installed, the cabin temperative sensor unit must be removed from the old bin and installed in the new bin if applicable.

(1) To install a bin, retract the pivot pins into the unit until outside face is flush.

(2) Position bin in hat rack and carefully support in open position.

(3) Extend pivot pins to locate in the support arm.

(4) Replace net on hooks.

(5) Insert bolts through pivot pins and secure in place with washer and nuts.

NOTE: At positions having a ceiling feature support bracket no nut and washer are required.

(6) Torque tighten bolts to between 15 and 20 lbf in (0.17 and 0.23 mdaN).

NOTE: At positions have a feature support bracket an end float of 0.03 ins is required, this can be achieved by slackening the bolt ONE turn.

(7) Electrically connect the temperature sensor unit and fit the covers.

(a) Ensure that the electrical safety precautions have been complied with.

(b) Check that all the electrical plugs and receptacles are clean and undamaged, then connect the electrical plugs to the ambient temperature sensors and the sampling duct fan(s).

(c) Remove the four captive washer self-locking nuts from the bolts securing the cable guide to the fan assembly mounting bracket and remove the guide. Do not withdraw bolts.

(d) Gather the cables together between the four bolts on the sensor side of the fan assembly mounting bracket with the cable(s) from the sampling duct fan(s) passing over the top of the bracket. Then locate and hold the cables with the cable guide and secure the guide with the captive washer nuts. Torque load the bolts to between 15 and 20 lbf in (0.17 and 0.23 mdaN).

NOTE: Allow sufficient cable between the cable clamp and the plugs to prevent straining the plugs and receptacles of the sensors and fan(s).

(e) Remove the two countersunk headed screws securing the cable clamp and remove the clamp.

(f) Locate the cable with the clamp and replace the screws; torque tighten to between 15 and 20 lbf in (0.17 and 0.23 mdaN).

(g) Remove the safety clips and reset the circuit breakers previously tripped.

(h) Operationally test the cabin temperature sensor unit as detailed in 21-60-00, Adjustment/Test.

(j) Check that the polyurethane seals attached to the mating edges of the two covers are undamaged.

(k) Fit the sampling duct fan cover to the fan assembly mounting bracket by locating the two spigots on the cover with the holes in the sensor unit. Secure cover with the two pan head bolts.

(l) Assemble the sensor cover to the sensor unit ensuring that the cables lay flat against the fan assembly mounting bracket to avoid excessive air loss. Secure the cover and the cable clips with bolts and torque tighten to between 15 and 20 lbf in (0.17 and 0.23 mdaN).

(m) Attach the two diaphram plates using screws and washers.

(n) Assemble the furnishing panel to the stowage bin and secure with the four screws.

(o) Attach the protective net to the furnishing panels and secure with the four screws.

E. Conclusion

(1) Ensure stowage bin is clean and clear of tools and miscellaneous items.

(2) Shut the bin fully so that each catch engages on its pin.

(3) Re-open the bin and check that after the initial free fall the damper resistance is felt over the remaining range of bin travel. Close the bin.

OVERHEAD STOWAGE BINS - ADJUSTMENT/TEST

1. General

   A. To ensure smooth operation of the stowage bins, it is essential that the procedures outlined in this section are carried out.

      NOTE: All item numbers in this section refer to Figure 501, and relate to part numbers given in CMM ATP E9994.

2. Stowage Bin Alignment

   A. Bin Adjustment

      (1) Remove the pan head screws (115), spring washers (110) and catch covers (100) and (105).

      (2) Loosen the pan head screws (180) which secure the catch assemblies (120) and (125) to the stowage bin.

      (3) Align the bin and re-tighten the pan head screws (180).

      (4) Install the catch covers (100) and (105) and secure with pan head screws (115) and spring washers (110).

3. Catch Spigot Lubrication

   A. Ensure that the rollers on the catch spigots, which are located on the aircraft support diaphragms, rotate freely and do not bind. Lubricate with silicon grease MS 4 AER (20-30-00, Product No. 066).

4. Catch Assemblies - Adjustment

   A. Catch Assembly Check

      (1) The catch assemblies (120) and (125) are located on the ends of the stowage bins. Ensure the locking pins fully retract into the housings when the latch handle is fully open.

B. Cable Adjustment

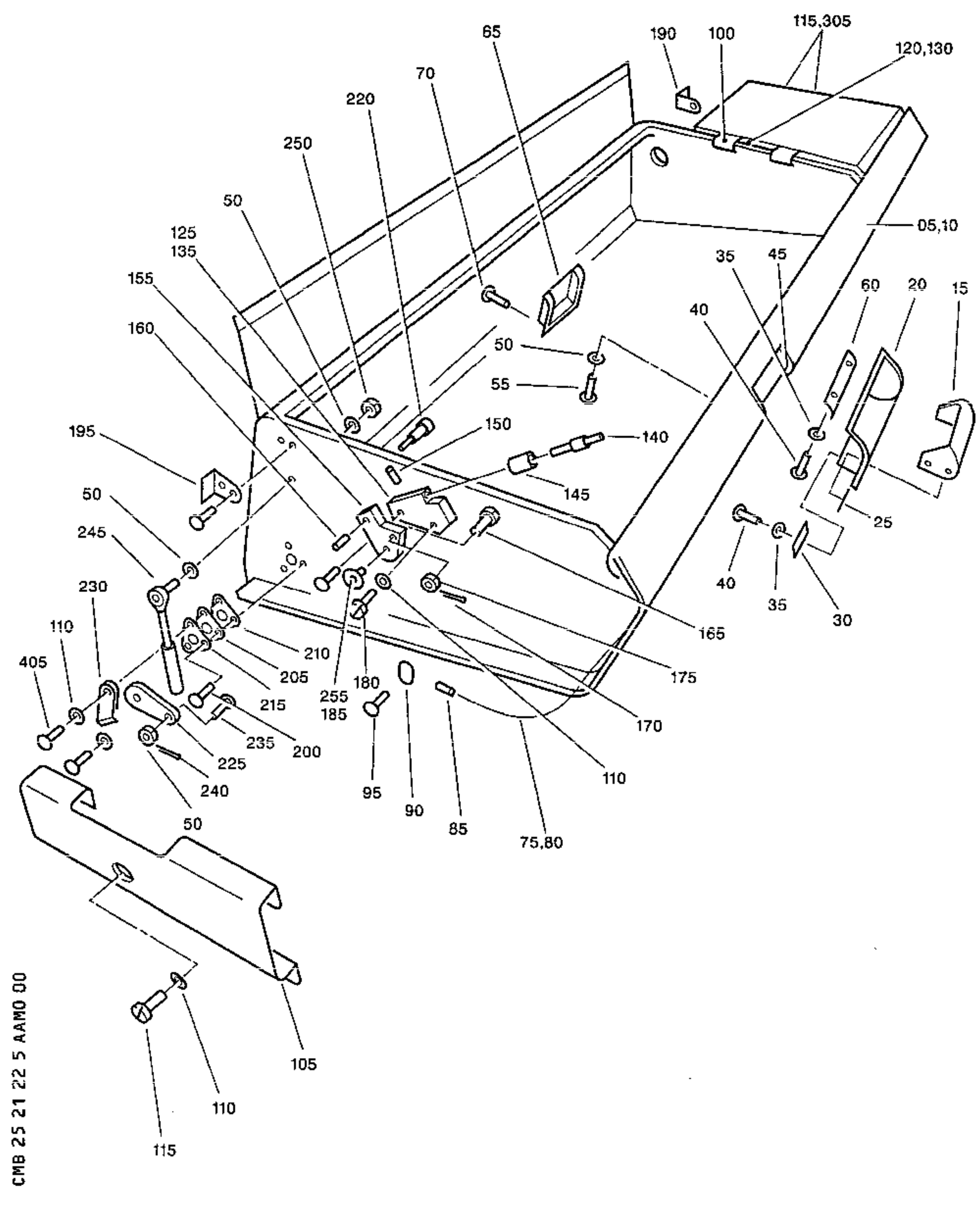
(1) If cable adjustment is necessary proceed as follows:

(a) Loosen the grub screw (255) in the trunnion (185) fitted through the fulcrum arm (155).

(b) Adjust the cable inner (75) such that the locking pins (140) are fully retracted and tighten the grub screw (255) to secure the cable.

5. Damper Assembly Check

A. Check that the damper assemblies are working satisfactorily. If a damper (245) or dampers have failed, the stowage bin door will fall open too quickly. Replace the dampers as necessary, and lubricate associated linkages using silicon grease MS 4 AER (20-30-00, Product No. 066).



Overhead Stowage Bin
Figure 501

OVERHEAD STOWAGE BINS - CLEANING/PAINTING

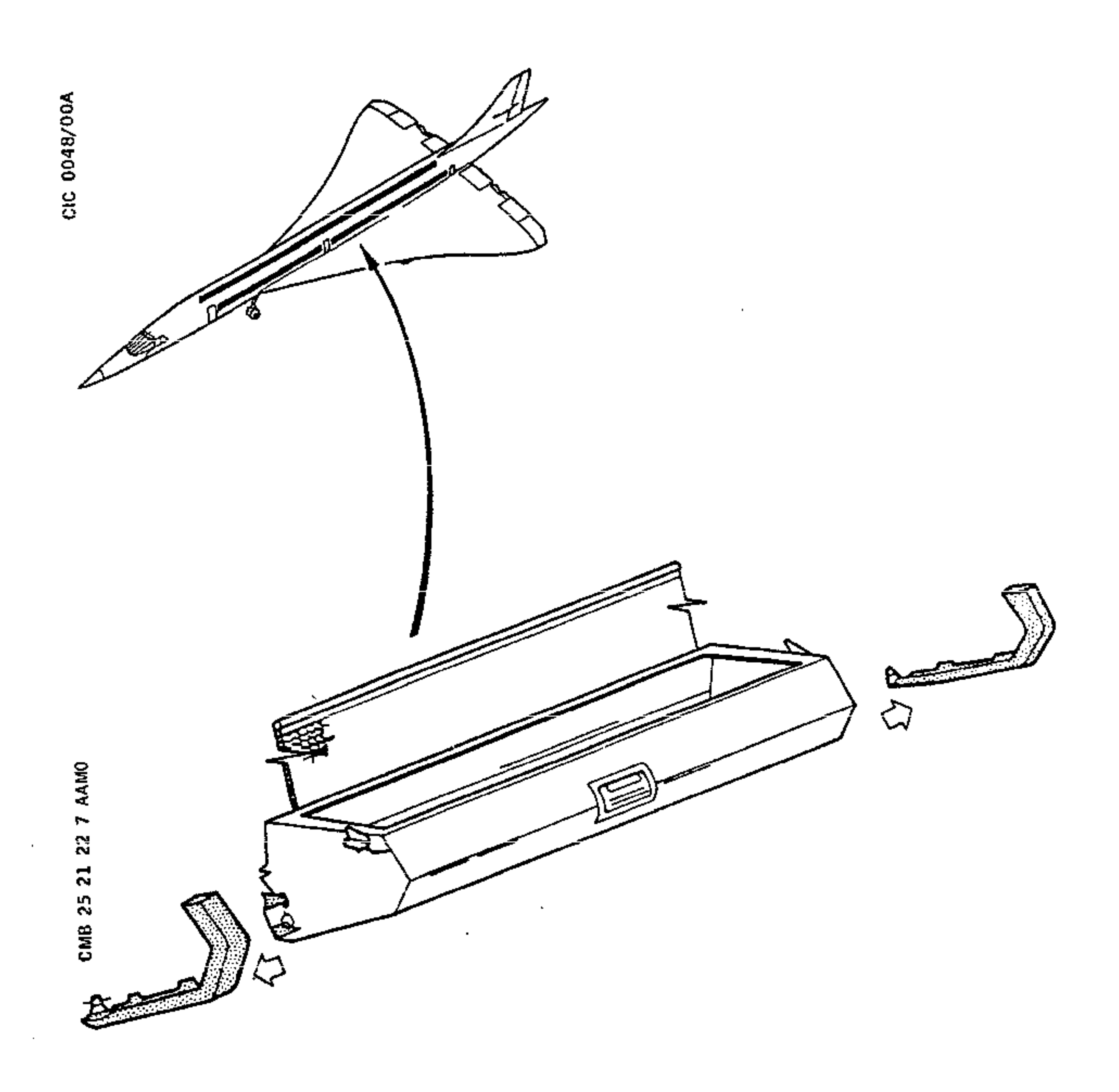
A. CLEANING

NOTE: To avoid possible deterioration due to cleaning of some aircraft interior furnishing items made from polycarbonate use only agents containing NO solvent.

(1) Clean all parts with a damp cloth using soapy water if necessary. DO NOT USE ANY ABRASIVE CLEANER.

NOTE: Take care to prevent water getting on any electrical item, (fans and temperature sensors).

(2) Thoroughly dry all parts using a clean dry cloth.



Bin-end Mouldings Location
Figure 701

SPEAKER/SIGN PANELS - REMOVAL/INSTALLATION

RB WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT, OIL
RB AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN
RB EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE
RB OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN
RB EQUIPMENT AND THE SURROUNDING AREA CLEAN AND FREE FROM
RB CONTAMINATION (REF. 35-00-00, SERVICING).

RB OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN
RB 24-00-00.

1. General

The speaker/sign panels are fitted at intervals beneath the passenger luggage bins and in line with the passenger service units. Each panel carries a speaker, the speaker transformer, two signs - NO SMOKING and FASTEN SEAT BELTS - and their filaments.

The panels on the LH and RH sides are similar but handed.

2. Speaker/Sign Panel (Ref. Fig. 401)

A. Equipment and Materials.

DESCRIPTION	PART NO.
Safety clips, circuit breakers	-

B. Prepare to Remove

(1) Electrically isolate the speaker/sign panel by tripping the associated circuit breaker: fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
FASTEN S/BELTS SUP	1-213	W191	L 8
NO SMOKING SUP	1-213	W192	L 9
PA SUP	1-213	R139	K20

RB (2) Undo the screws securing the air vane fairing: access
RB to the screws is through the air vent slot at each end
RB of fairing. Lower the air vane fairing and remove it
RB (Ref. 25-22-21, Removal/Installation).

C. Remove

(1) Compress the spring clips on the outboard side of the speaker/sign panel and lower the panel from the mounting rail.

(2) Disconnect the electrical plug and remove the panel.

D. Install

RB NOTE: Refer to IPC Chap. 25-21-20 for location of
RB speaker/sign panels in relation to PSUs, oxygen and
RB infill Panels.

RB (1) Comply with the oxygen and electrical safety
RB precautions taken before removal.

(2) Connect the panel electrical plug to the receptacle.
RB Stow the surplus electrical cable.

RB (3) Each chassis mounting spring is fitted with a
RB centring device. The bar in this part is designed
RB to locate in the slots in the outboard mounting rail.
RB It is necessary to fit one of the three centring
RB devices available to ensure correct location.

RB Standard (Central), 0.25 in (6.35 mm) Offset and
RB 0.4 in (10.16 mm) Offset devices are available.

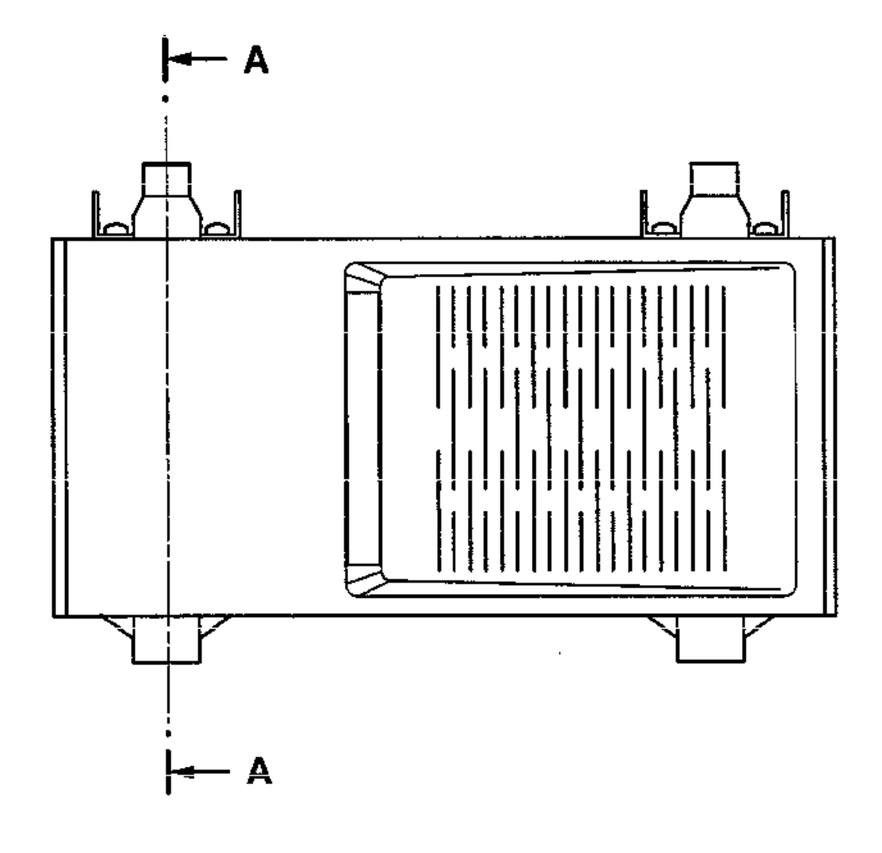
RB Select and fit a device that having located in the
RB slot, does not deform the spring mounting clip
RB sideways by more than 0.125 in (3.175 mm).

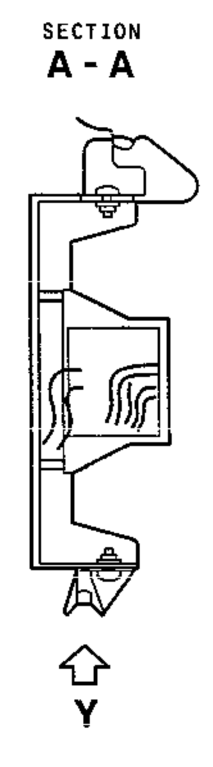
RB (4) Hold the speaker/sign panel in position, engage the
RB inboard edge of the speaker/sign panel on the mounting
RB rail, raise and clip into position. Check that the
RB locating devices in the spring clips are correctly
RB engaged in the locating slots in the support rail.

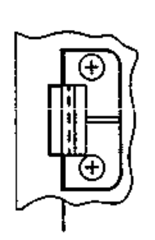
NOTE: The speaker/sign panel should be on a constant
RB level with the PSU, oxygen and infill panels.
Adjustments, up and down, can be made on the
mounting clips and brackets.

(5) Remove the circuit breaker safety clips and reset
RB the circuit breaker previously tripped in
RB para. 2.B.(1).

RB (6) Functionally test the passenger address system
(Ref. 23-31-00) and the passenger warning lights
RB (Ref. 33-25-00) for satisfactory operation.







SPRING MOUNTING CLIP

CENTRING DEVICE

CMB 25 21 23 4 AAMO 00

RB

Speaker/Sign Panel - Installation
Figure 401

(7) Refit the air vane fairing (Ref. 25-22-21, Removal/ Installation).

RB (8) Clean the panels and adjacent area as necessary with a damp cloth.

INFILL PANELS - REMOVAL/INSTALLATION

RB WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND THEIR SURROUNDING CLEAN AND FREE FROM CONTAMINATION (Ref. 35-00-00).

1. General (Ref. Fig. 401)

RB The infill panels complete the trim arrangements between overhead passenger service units, speaker/sign units, oxygen panels and the bulkheads. Four sizes of handed infill panels are used, 6 in (152.4 mm), 7 in (177.8 mm), 8 in (203.2 mm) and 11 in (279.4 mm) length to suit the various seat and Passenger Service Unit (PSU) installation.

2. Infill Panel (Ref. Fig. 401)

A. Prepare

(1) Undo the screws securing the air vane fairing; access to the screws is through the air vent slot at each end of fairing. Lower the air vent fairing and remove it (Ref. 25-22-21, Removal/Installation).

B. Remove

RB (1) Compress the spring clip at the outboard end of the infill panel, lower the panel and remove it from the mounting rail.

C. Install (Ref. Fig. 401)

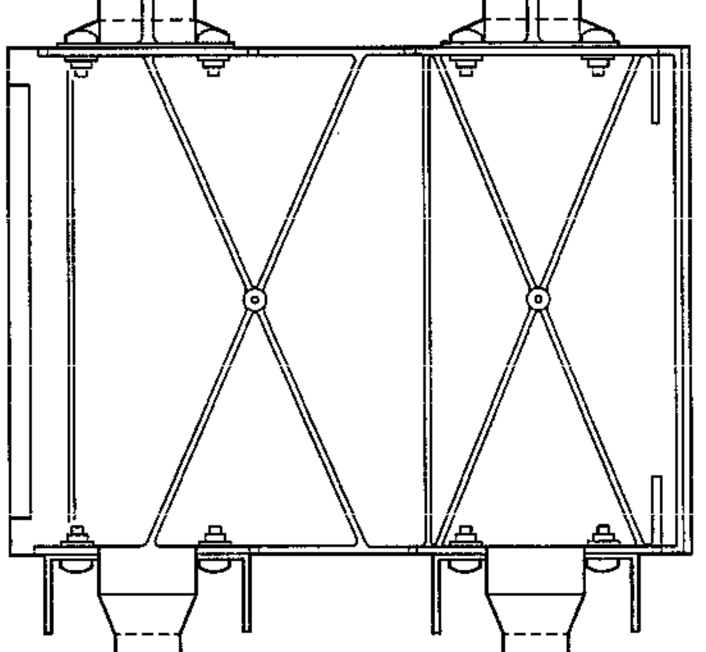
RB NOTE: Refer to IPC Chap. 25-21-20 for location of PSUs in relation to speaker, oxygen and infill panels.

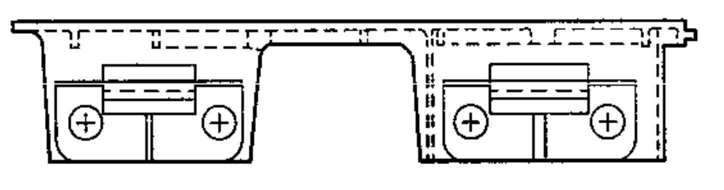
RB (1) Ensure the appropriate infill panel is selected to fill the space required.

RB (2) Each chassis mounting spring is fitted with a centring device. The bar in this part is designed to locate in the slots in the outboard mounting rail. Normally one of the locating devices with a locating bar is used, they are standard (central), 0.25 in (6.35 mm) offset and 0.4 in (10.16 mm) offset.

RB Select and fit a device that having located in the slot, does not deform the spring mounting clip sideways by more than 0.125 in (3.175 mm).

CENTRING DEVICE
(STANDARD SHOWN)





CMB 25 21 24 4 AAM0 00

7 INCH PANEL ILLUSTRATED

RB

Infill Panels - Installation
Figure 401

RB A device without a locating bar may be used with
RB infill panels only if an improved fit is obtained.

RB (3) Engage the mounting brackets on the inboard edge of the infill panel on the lip of the mounting rail,
RB raise the panel and clip into position. Check
RB that the locating devices in the spring clips are
RB correctly engaged in the locating slots in the
RB support rail, if applicable.

RB NOTE: The level of all PSU, speaker/sign, oxygen and infill panels is to be kept constant. Adjustment can be made up or down on the mounting clips and brackets.

D. Conclusion

(1) Refit the air vane fairing (Ref. 25-22-21, Removal/Installation).

(2) Clean the panels and adjacent area, as necessary, with a damp cloth.

PASSENGER COMPARTMENT FLOOR COVERING - REMOVAL/INSTALLATION

1. General

The forward and rear passenger compartment floors are covered with panels of fitted flame-resistant carpet with the pile-lay facing aft. The carpet is pre-stretched and generally attached to the floor with double-sided adhesive tape except at the edges where it is held by trapping strips at the vestibule thresholds and by plastic capping strips which push into the seat rail slots to trap the carpet either side of each seat rail. Any untrapped carpet edge is lightly coated with adhesive to prevent fraying.

R There are four access flaps in the carpet, two in the forward cabin and two in the rear cabin. Two of these, giving access to the nose landing gear emergency release access panel (221RF) and the main landing gear emergency release access panel (233BF), are
R secured as shown on the illustration. The other two, which are the nose landing gear lock observation access panel (221YF) and
R access panel (223FF), are secured using double-sided adhesive tape. The carpet flaps fold back when access is required.

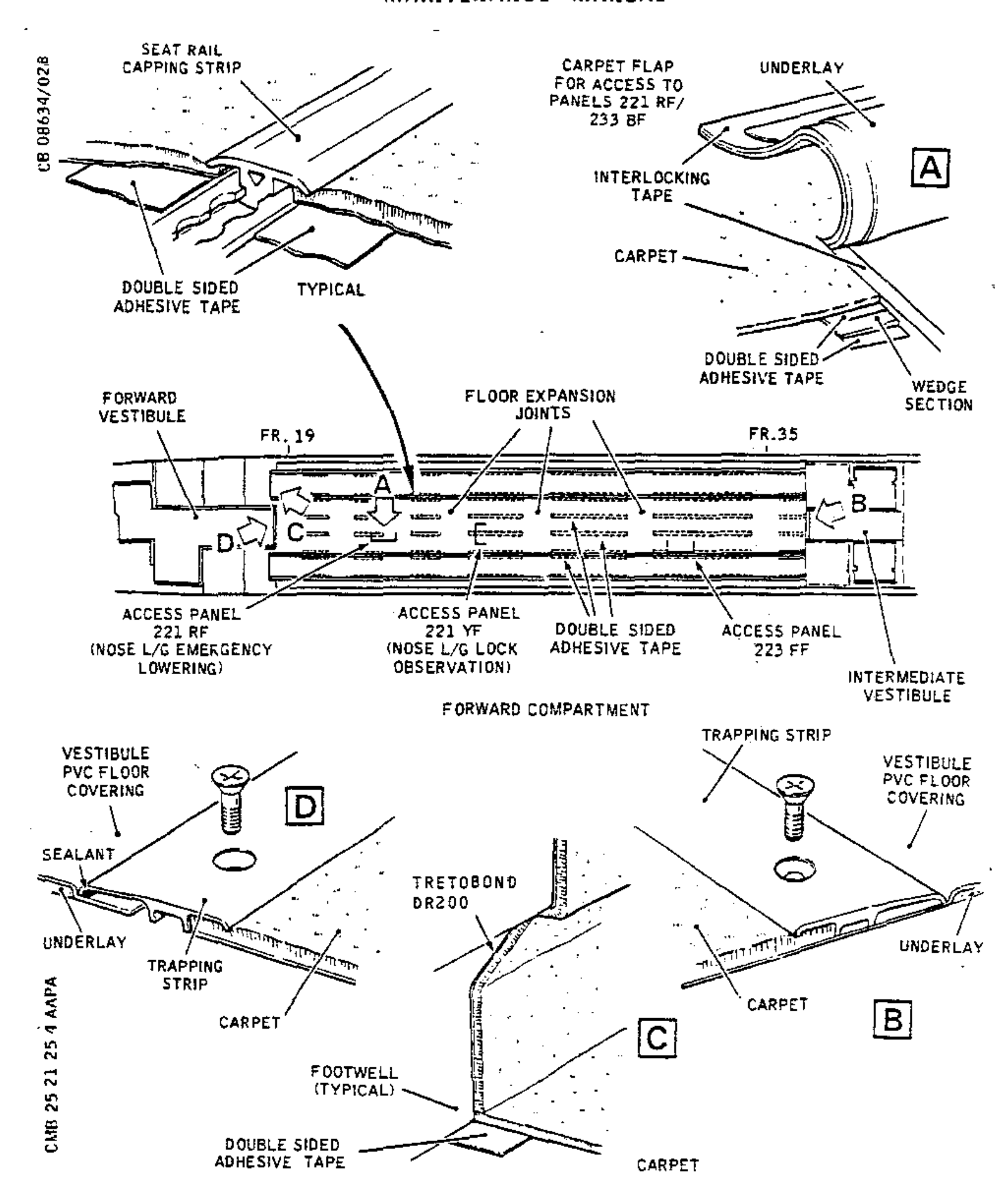
Cover plates are positioned over each floor expansion joint to avoid damaging the carpet in these areas. To allow for expansion the carpet is not attached to the floor for 12 in (305 mm) each side of the joint.

The carpet in the forward cabin comprises a single panel of carpet between each pair of seat rails and a single panel in the centre aisle. The carpet in the rear cabin comprises a single panel
B between each pair of seat rails and a single panel in the centre aisle.

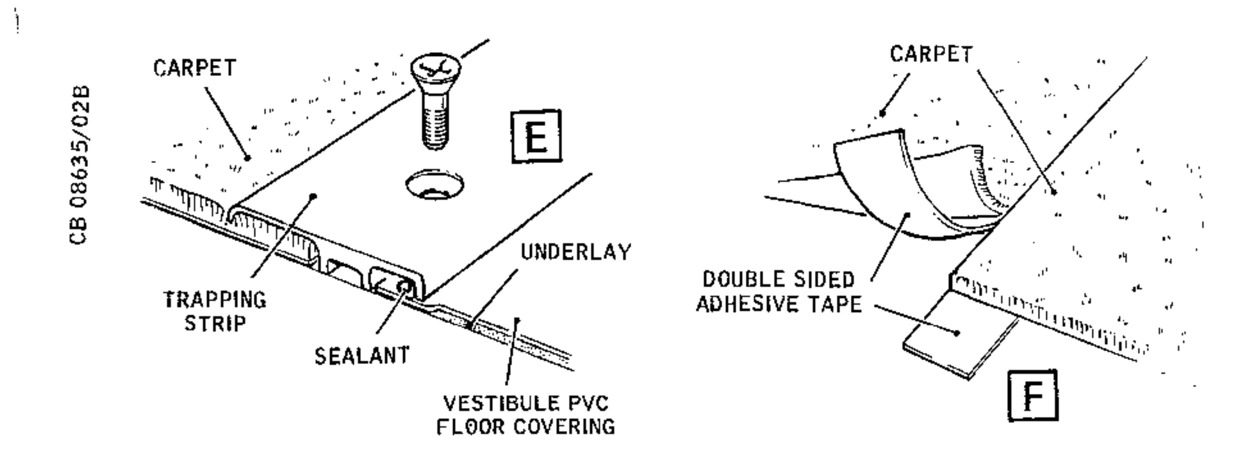
2. Floor covering (Ref. Fig. 401)

A. Equipment and Materials

	DESCRIPTION	PART NO.
B	Tretobond DR200	-
	Interlocking tape (Ref.20-30-00, No.131)	-



Passenger Compartment Carpet -
Installation (Sheet 1 of 2)
Figure 401



FR.41
CARPET FRONT SECTION
CARPET CENTRE SECTION
FLOOR EXPANSION JOINTS
CARPET REAR SECTION
E
F
G
H
E
INTERMEDIATE VESTIBULE
ACCESS PANEL 233 BF (MAIN L/G EMERGENCY LOWERING)
FR.69
REAR VESTIBULE

CARPET
DOUBLE SIDED ADHESIVE TAPE
H
CARPET
G
CMB 25 21 25 4 01 AAPB

Passenger Compartment Carpet -
Installation (Sheet 2 of 2)
Figure 401

DESCRIPTION	PART NO.
Double-sided adhesive tape No. 567	-
Underlay CM699 (Ref.20-30-00, No.181)	-
General purpose cleaning solvent BACM302 (Ref.20-30-00, No.473)	-
Vacuum cleaner with attachments	-

R B

B. Remove Forward Cabin Centre Aisle Carpet

(1) Remove the trapping strip securing the carpet edge at the forward vestibule.

(2) Remove the trapping strip securing the carpet edge at the intermediate vestibule.

(3) Remove the seat rail capping strips securing the sides of the carpet along the inboard seat rails.

(4) Peel the carpet away from the floor and remove the double-sided adhesive tape.

(5) If necessary, peel the carpet trim from the aft face of the forward bulkheads.

(6) Clean any adhesive from the floor and bulkhead with a clean lint-free cloth moistened with cleaning solvent.

C. Install Forward Cabin Centre Aisle Carpet

(1) Vacuum clean the floor to remove dust and clean contaminated areas with a clean, lint-free cloth moistened with cleaning solvent.

(2) Apply double-sided adhesive tape to the floor abutting the inboard seat rails, leaving a space 12 in (305 mm) each side of each floor expansion joint.

(3) Apply double-sided adhesive tape to the floor at 9.75 in (247.65 mm) centres each side of the floor centre line. Leave a space 12 in (305 mm) each side of each floor expansion joints.

(4) Apply double-sided adhesive tape to the surrounds of access panels 221RF, 221YF and 223FF. Refit the wedge sections, covering material (CM338) and interlocking tape (loop) at access panel 221RF as appropriate (Ref. Fig. 401).

PRINTED IN ENGLAND

(5) Using the old carpet as a template, cut flaps in the new carpet to correspond with the access panels. Bond interlocking tape (hook) and underlay (CM699) to the underside of the flap for access panel 221RF using
R B Tretobond DR200, and apply double sided adhesive tape to the underside of the flaps for access panels 221 YF and 223 FF (Ref. Fig. 401).

(6) Trim and fit the carpet in the centre aisle. Press firmly to bond the carpet to the adhesive tape.

(7) Secure the edges of the carpet along the seat rails with seat rail capping strips.

(8) Secure the ends of the carpet at the forward and intermediate vestibules with trapping strips.

R B (9) Coat the untrapped edges of the carpet with Tretobond
R B DR200 to prevent fraying.

(10) Bond carpet trim to the aft face of the forward
R B bulkhead with Tretobond DR200.

D. Remove Rear Cabin Centre Aisle Carpet

(1) Remove the trapping strip securing the end of the carpet at the intermediate and the rear vestibules.

(2) Remove the seat rail capping strips securing the sides of the carpet along the inboard seat rails.

R B (3) Peel the carpet away from the floor and remove the double-sided adhesive tape.

(4) Clean any residue of adhesive from the floor with a clean, lint-free cloth moistened with cleaning solvent.

E. Install Rear Cabin Centre Aisle Carpet

(1) Vacuum clean the floor to remove dust and clean contaminated areas with a clean, lint-free cloth moistened with cleaning solvent.

(2) Apply double-sided adhesive tape to the floor abutting the inboard seat rails leaving a space 12 in (305 mm) each side of each floor expansion joint.

(3) Apply double-sided adhesive tape to the floor at 9.75 in (247,65 mm) centres each side of the floor centre line. Leave a space 12 in (305 mm) each side of each floor expansion joint.

(4) Apply double-sided adhesive tape transversely to the B floor at the joint between the carpet and 12 in (305 mm) each side of the floor expansion joint.

(5) Apply double-sided adhesive tape to the surrounds of access panel 233BF. Refit the wedge sections and interlocking tape (loop) at access panel 233BF as appropriate (Ref. Fig. 401).

(6) Using the old carpet as a template cut flaps in the middle panel to correspond with the access panels. Bond interlocking tape (hook) and underlay (CM699) to the underside of the flap for access panel 233BF B using Tretobond DR200. (Ref. Fig. 401).

(7) Trim and fit the carpet panels in the centre aisle. Press firmly to bond the carpet to the adhesive tape.

(8) Secure the end of the carpet at the intermediate and rear vestibules with a trapping strip.

(9) Secure the sides of the carpet along the seat rail with rail capping strips.

B (10) Coat all untrapped edges of the carpet with Tretobond B DR200 to prevent fraying.

F. Remove Carpet Between Seat Rails on LH and RH Side of Passenger Compartment

<u>NOTE</u>: The following steps of procedure are applicable to both forward and rear passenger compartments.

(1) Remove the passenger seats (Ref. 25-14-11, Removal/ Installation).

(2) Peel the carpet away from the floor and remove the double-sided adhesive tape.

(3) Peel the carpet away from the footwell in the forward bulkhead.

NOTE: The carpet is secured to the footwell with
B Tretobond DR200 and double-sided adhesive tape.

(4) Clean any residue of adhesive from the floor and bulkhead with a clean, lint-free cloth moistened with cleaning solvent.

G. Install Carpet Between Seat Rails on LH and RH Side of Passenger Compartment

NOTE: The following steps of procedure are applicable to both forward and rear passenger compartments, except where stated otherwise.

(1) Apply double-sided adhesive tape to the floor abutting the seat rails, leaving a space 12 in (305 mm) each side of each floor expansion joint.

(2) Apply double-sided adhesive tape to the floor transversely at each end of the carpet.

(3) In the rear compartment only: apply double-sided adhesive tape to the floor transversely 12 in (305 mm) each side of each floor expansion joint.

(4) Trim and fit carpet between the seat rails. Press firmly to bond the carpet to the adhesive tape.

(5) Trim and fit carpet to the footwell on the forward
B bulkheads. Bond the carpet with Tretobond DR200 and double-sided adhesive tape where appropriate.

(6) Install the passenger seats (Ref. 25-24-11, Removal/Installation).

RB H. Replacing Entry Mats Part No. 30 x 30A or 30 x 24A

RB (1) Coat and fill pile of Flotex/Carpet area under mat
RB with Tretobond DR200 and allow to dry.

RB (2) Attach mat to coated area using double-sided
RB adhesive tape.

RB NOTE: Mats are to be changed when Flotex/Carpet is
RB changed.

VESTIBULE POLYVINYL-CHLORIDE (PVC) FLOOR PANELS - REMOVAL/INSTALLATION

1. General

The forward, intermediate and rear vestibule are covered by PVC panels which are secured to the fuselage floor panels by panel edge strips. Individual PVC panels are also secured by double-sided adhesive tape to the fuselage floor panels. Sealant and water proof tape is applied to joints where moisture traps occur.

Foam underlay is secured to each PVC panel with adhesive to provide a degree of resilience for retarding wear on the panel and to prevent damage to the floor panels.

2. PVC Floor Panel

A. Equipment and Materials

DESCRIPTION	PART NO.
Cleaning solvent BAC M302 (Ref. 20-30-00, No.473)	-
Double-sided adhesive tape (Ref. 20-30-00, No.180)	-
Waterproof fabric sealing tape (Ref. 20-30-00, No.161)	-
Viton proofed nomex fabric CM083 (Ref.20-30-00, No.128)	-
Elastomeric coating CM718 (Ref. 20-30-00, No.185)	-
Boscoprene adhesive (Ref.20-30-00, No.328)	-
R Expanded neoprene CM335 (Ref. 20-30-00, No.184)	-
Sealant RTV731 (Ref.20-30-00 No. 364)	-
Sealant PR1422 (Ref.20-30-00, No.358)	-

B. Remove Panel

(1) Ensure that the panel is clear of equipment and that it is swept clean.

NOTE: In certain areas, the passenger compartment carpet will have to be lifted clear of the PVC panels.

(2) Remove the fasteners securing the PVC panel edge strips; remove the strips.

(3) Remove the fabric sealing tape from the panel joints, where applicable.

(4) Using a non-metallic scraper, remove the fillet sealant at the periphery of the PVC panel, where applicable.

(5) Gently lift the PVC floor panel, including the underlay, away from the double-sided adhesive tape; remove the panel.

C. Prepare to Install

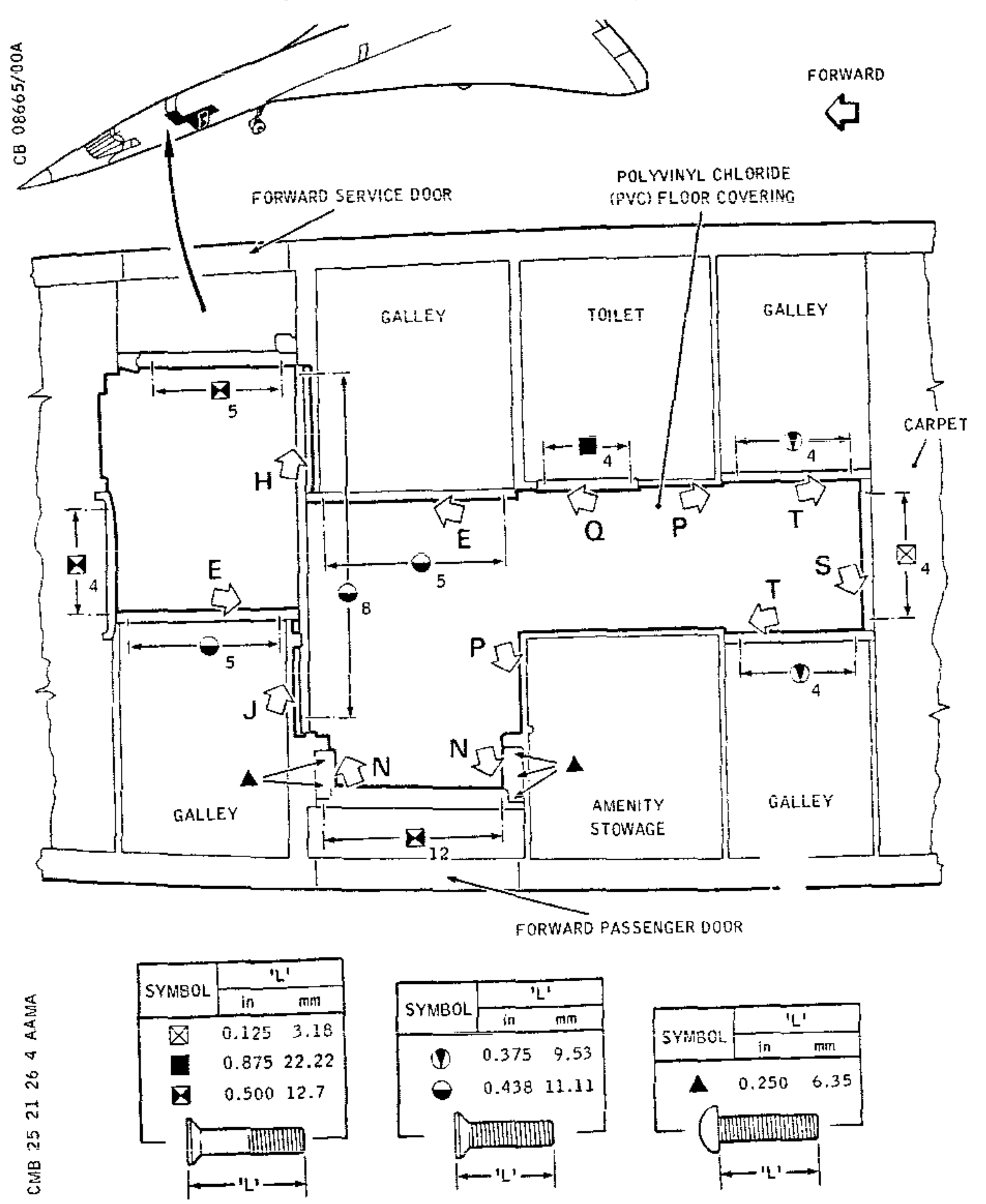
(1) Using a non-metallic scraper, remove existing double-sided adhesive tape and cured sealant from the fuselage floor panel and strips, and wipe the area with a clean lint-free cloth moistened with cleaning solvent. Visually inspect the aluminium foil on top of the fuselage floor panels for damage. If necessary, repair the foil as detailed in 53-20-00, Approved Repairs.

(2) Where applicable, check that the waterproof fabric sealing strip and sealant between the fuselage floor panels are satisfactory. Reapply sealant and tape, where necessary.

(3) Check that the underlay on the PVC panel is undamaged and is secured by adhesive to the panel; reapply adhesive to secure the underlay (Ref.20-25-26), as necessary.

(4) If the underlay and/or the PVC panel are considered unserviceable, cut new parts from identical material using the damaged parts as a pattern.

D. Install

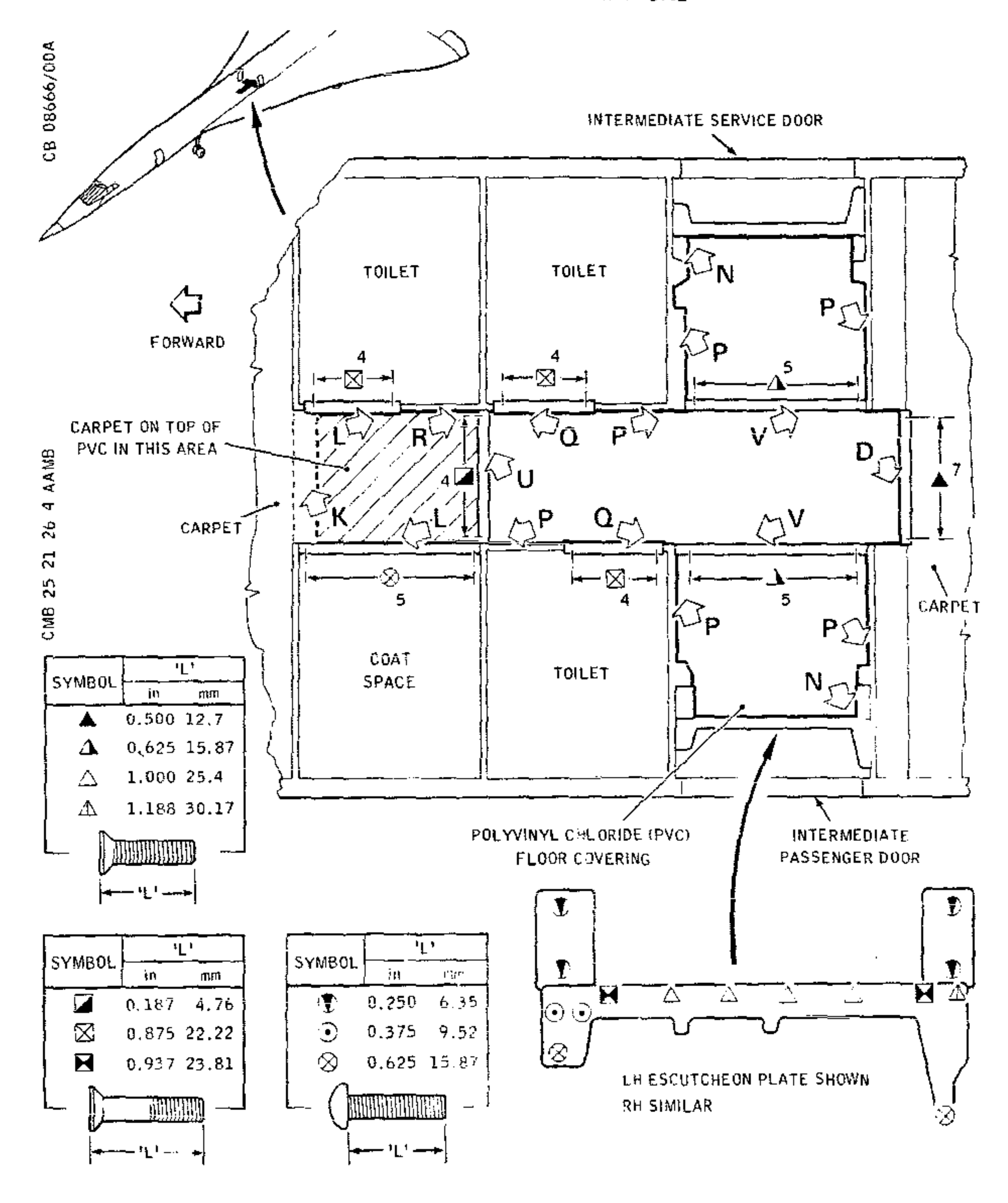


SYMBOL	'L' in	'L' mm
⊠	0.125	3.18
■	0.875	22.22
⧓	0.500	12.7

SYMBOL	'L' in	'L' mm
⊕	0.375	9.53
◒	0.438	11.11

SYMBOL	'L' in	'L' mm
▲	0.250	6.35

Vestibule PVC Floor Panels - Installation
(Sheet 1 of 6)
Figure 401

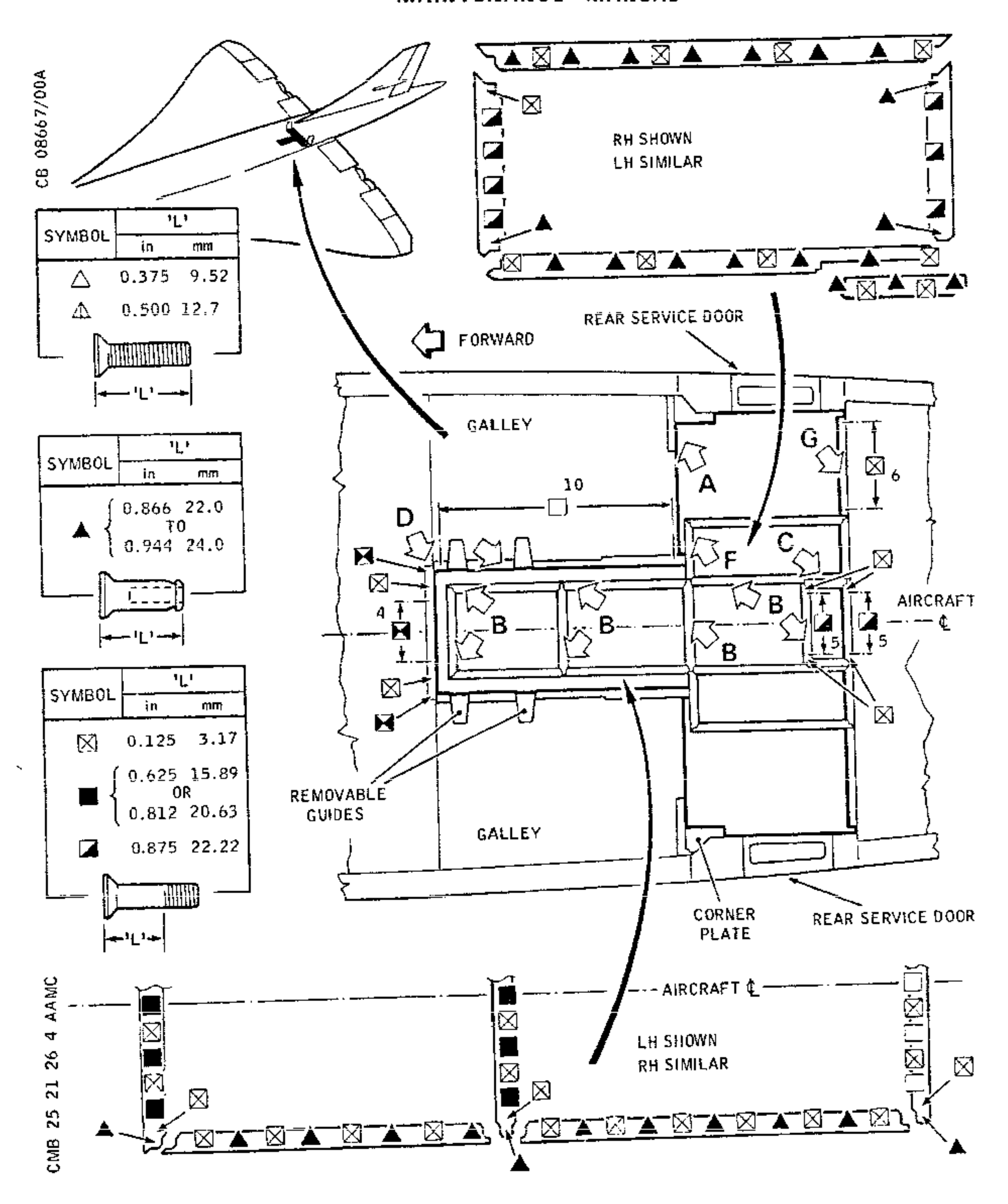


SYMBOL	'L' in	'L' mm
▲	0.500	12.7
◭	0.625	15.87
△	1.000	25.4
⚠	1.188	30.17

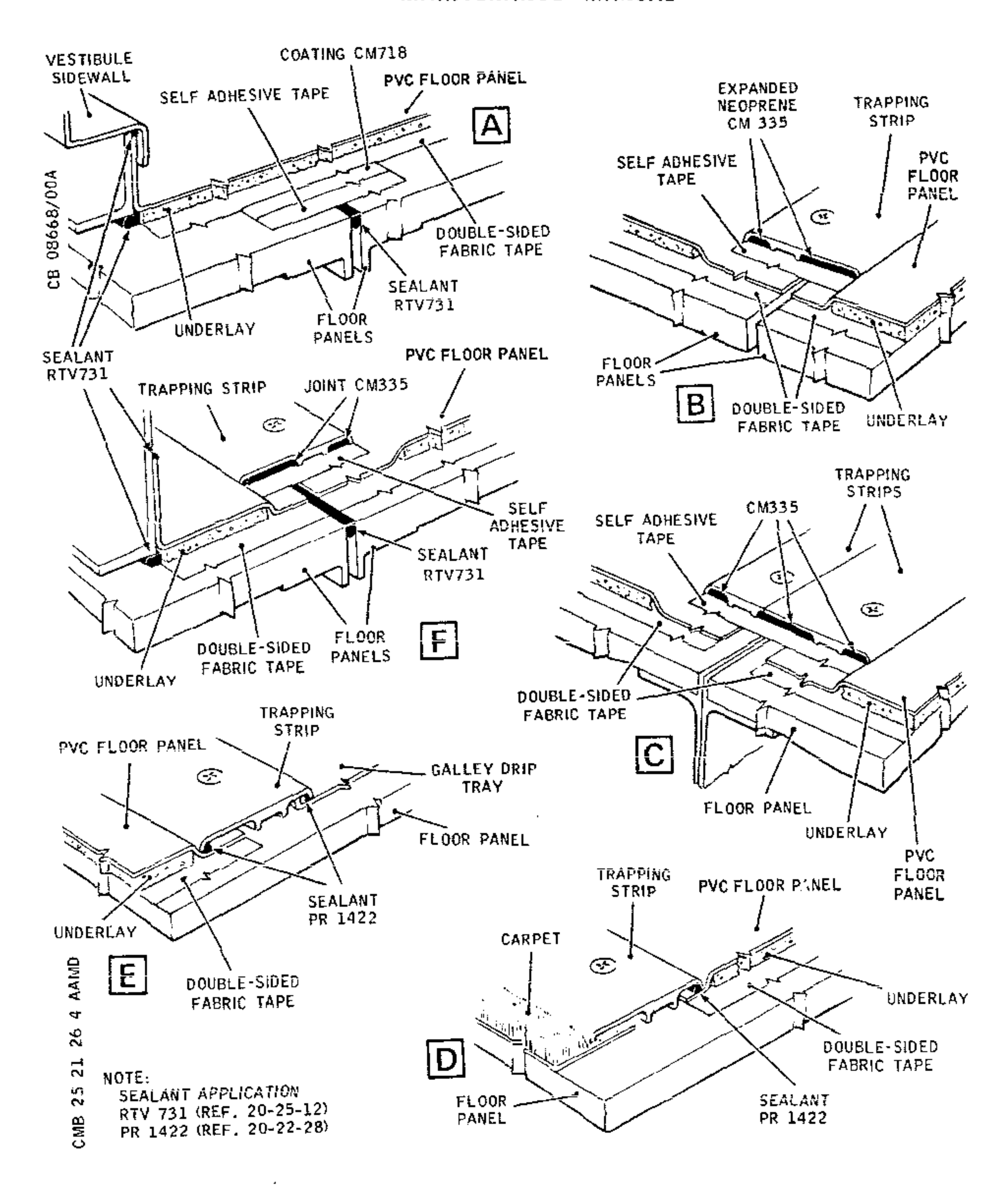
SYMBOL	'L' in	'L' mm
◪	0.187	4.76
⊠	0.875	22.22
⧗	0.937	23.81

SYMBOL	'L' in	'L' mm
▼	0.250	6.35
⊙	0.375	9.52
⊗	0.625	15.87

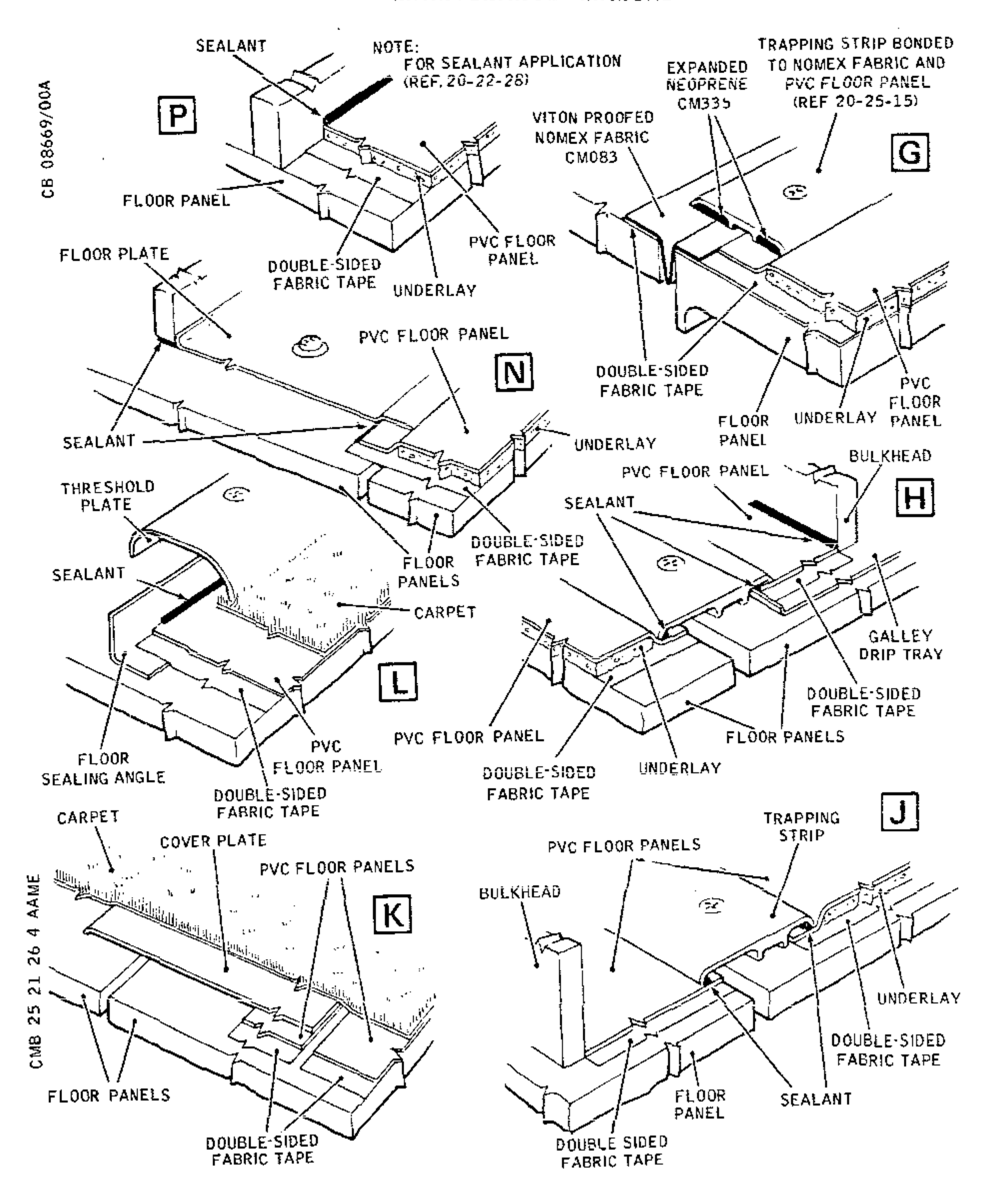
Vestibule PVC Floor Panels - Installation
(Sheet 2 of 6)
Figure 401



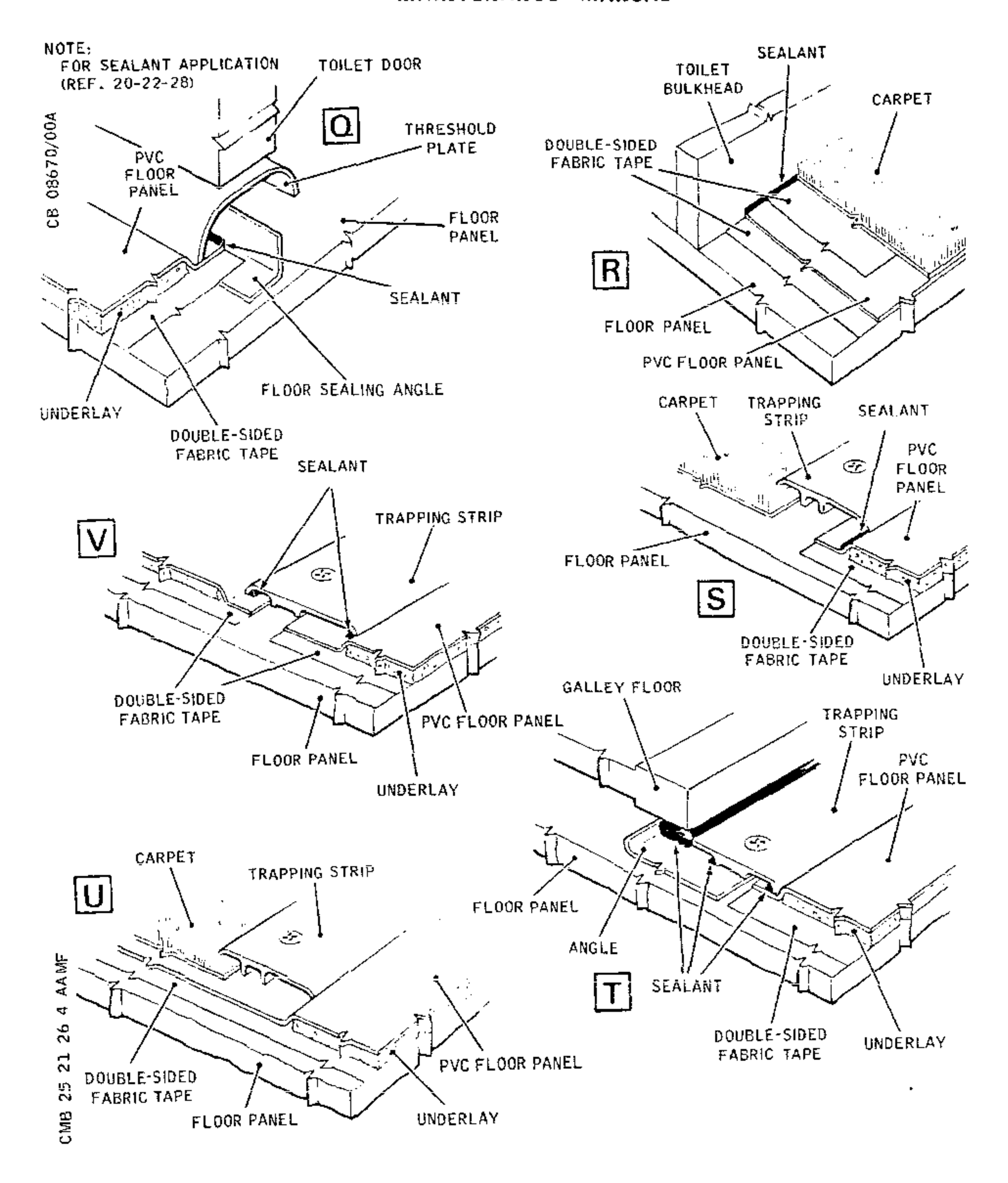
Vestibule PVC Floor Panels - Installation
(Sheet 3 of 6)
Figure 401



Vestibule PVC Floor Panels - Installation
(Sheet 4 of 6)
Figure 401



Vestibule PVC Floor Panels - Installation
(Sheet 5 of 6)
Figure 401



Vestibule PVC Floor Panels - Installation
(Sheet 6 of 6)
Figure 401

NOTE: For application of the various sealants and sealing tapes, refer to Fig.401.

(1) Ensure that the fuselage floor panels, on which the
R PVC panel is to be laid, is free from foreign matter
R and items such as washers, nuts and rivets.

(2) Position the double-sided adhesive tape on the fuselage floor panel.

(3) If new underlay and/or PVC panels are to be installed:

(a) Ensure that the area is clear of materials and equipment.

(b) Position the underlay on the floor panels ensuring contact with the double-sided adhesive tape.

(c) Apply adhesive over the entire underside of the PVC panel (Ref.20-25-26); position the panel on the underlay ensuring contact over the entire area.

(4) If the original PVC panel, complete with underlay is to be installed.

(a) Ensure that the area is clear of material and equipment.

R (b) Carefully, lower the PVC panel into position.
R Press the panel in areas where the double-sided adhesive tape is fitted to ensure contact.

(5) Position waterproof fabric sealing tape to the PVC
R panel edges where they coincide with floor panel
R edges.

(6) Apply beads of sealant to PVC panel edge strips and in areas adjoining the galley floor and bulkheads. Fit the panel edge strips and secure them with fasteners.

NOTE: In some areas it will be necessary to refit the passenger compartment carpet before fitting the panel edge strips.

Printed in England

EXIT (SORTIE) SIGNS (SELF ILLUMINATED) - REMOVAL/INSTALLATION

WARNING: DURING SERVICING IF BREAKAGE OF BOTH THE OUTER PLASTIC HOUSING AND ONE OR MORE OF THE SIGN ELEMENTS OCCURS, EVACUATE ALL PERSONNEL FROM THE AIRCRAFT AND LEAVE ALL DOORS OPEN TO ALLOW MAXIMUM VENTILATION AROUND THE SIGN, WAIT FOR 30 MINUTES BEFORE RE-ENTERING THE AIRCRAFT.

1. General

A self-illuminated "EXIT" sign, filled with mildly radio-active Tritium gas is fitted in the forward vestibule. It is mounted in a hinged trim panel forming the upper part of the RH forward bulkhead.

2. Procedure(Ref. Fig. 401)

A. Removal

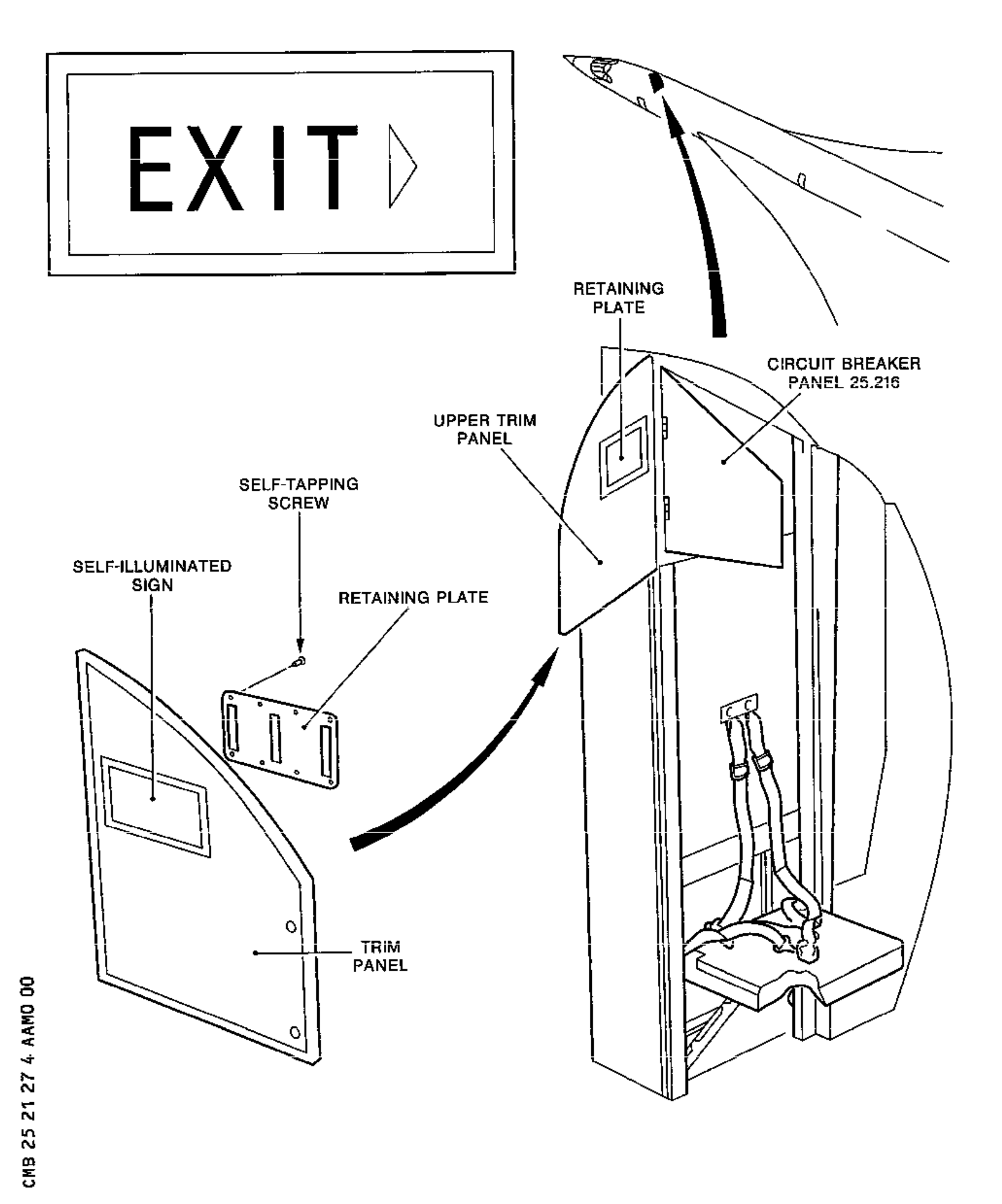
(1) Locate and open trim panel 222 BS.

(2) Remove the self-tapping screws securing the retaining plate to the back of the panel; remove the plate and slide the sign from its recess.

NOTE: All discarded signs are to be returned to the manufacturer or disposed of in accordance with the Radioactive Substances Act, 1960 and the Radiation Protection Standards for Gaseous Tritium Light Devices 1973 (Nuclear Energy Agency Organisation for Economic Co-operation and Development)

B. Installation

(1) Insert the sign into its recess in the trim panel 222 BS, and secure it with the retaining plate and self-tapping screws. Close the panel.



Exit Sign, Forward Vestibule - Installation
Figure 401

END OF THIS SECTION

NEXT

PASSENGER COMPARTMENT LINING
- DESCRIPTION AND OPERATION

1. General

The lining provides thermal insulation, sound proofing and interior furnishing trim above the floor level.

Insulation material, contained between the fuselage skin and the furnishing trim, is attached to support structure members which are sandwiched between the fuselage frames and the furnishing trim. The trim consists of ceiling panels, service panels, side-wall panels with window blinds incorporated, clamping strips and capping strips. All the materials used in the lining are fire-resistant and have been selected to ensure the lowest possible smoke emission.

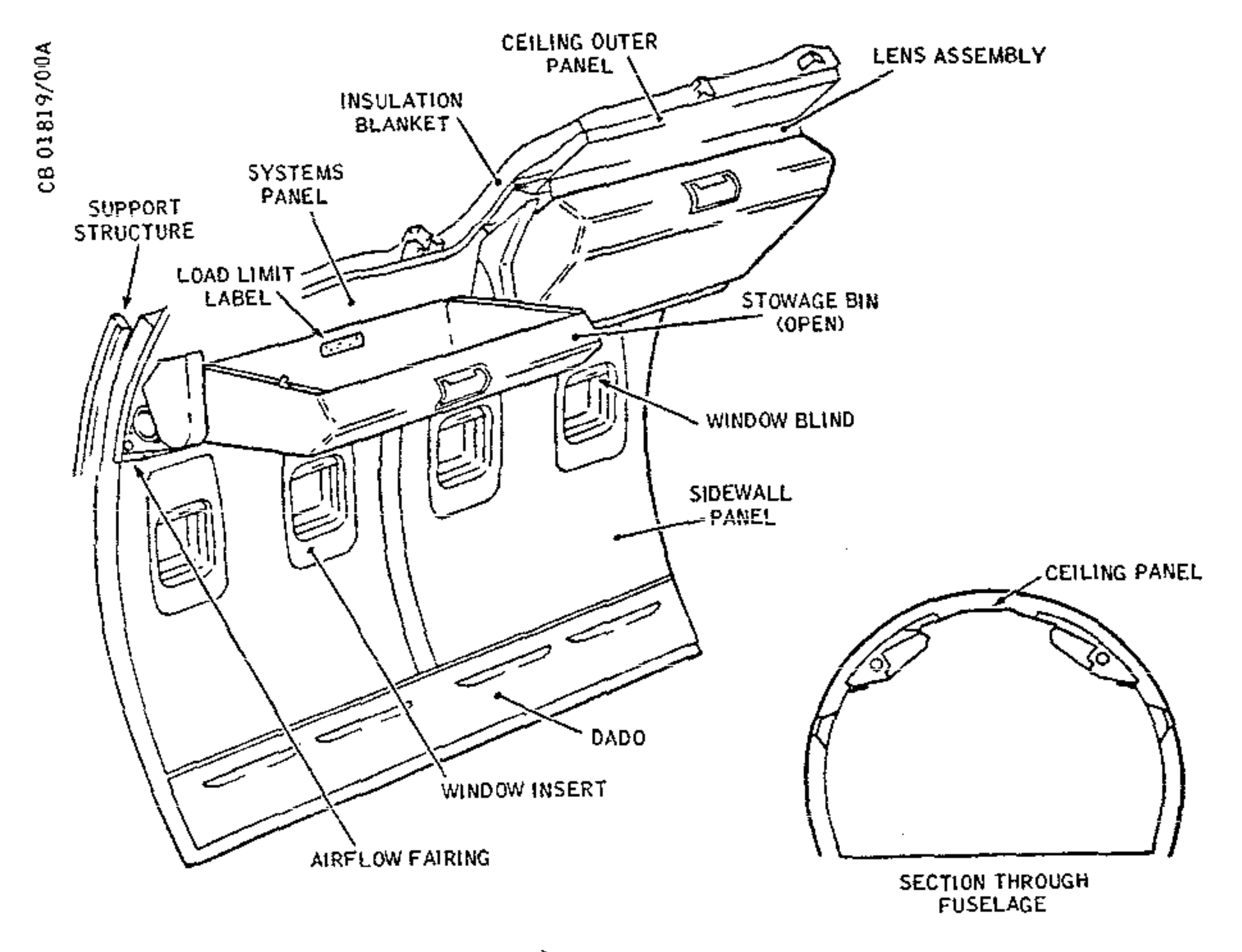
2. Furnishing Panels (Ref. Fig.001 and 002)

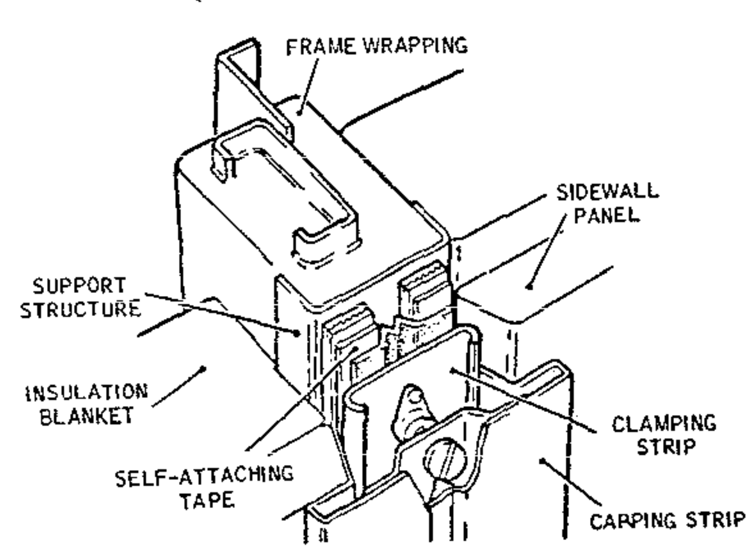
The ceiling, side-wall and systems panels are manufactured from resin impregnated fibre glass. They form the interior furnishing trim and give access to the insulation blankets.

The panels are attached to the support structure. A neoprene-terylene sealing strip is retained over the expansion gap between the panels, by a clamping strip fastened to the support structure with quick release studs and cups. The clamping strip between panels on the vertical joints allows linear expansion to take place, due to heat and flexing of the aircraft structure. The clamping strips and fasteners are concealed behind push fit capping strips.

The sidewall panels, which incorporate the window blinds, are generally two frame bays in length. They follow the contour of the aircraft structure, and extend from the floor to the air flow fairing. The decorative finish of the panel is applied by a silk screen process, which allows a variety of decorative colours and designs. The dado panel assembly, which incorporates air extraction louvres and passenger
R entertainment plug boxes, is manufactured from thicker material and may be painted a different colour from the upper part of the sidewall panel. Fibre glass insulation, contained in a sealed plastic membrane, is attached to the back of each sidewall panel (Ref. Fig.).

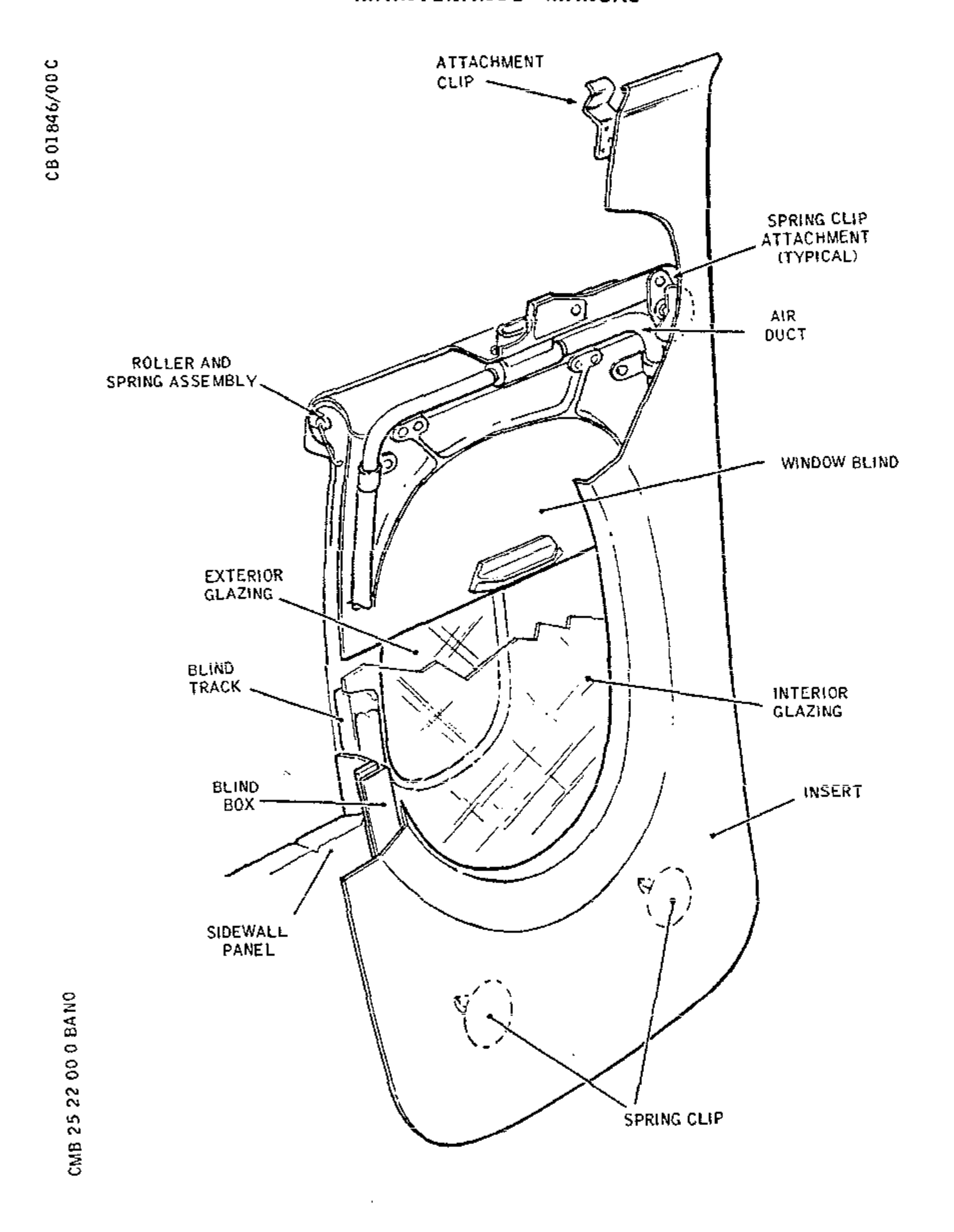
The manually operated cabin window blinds are built into the side wall panels. Each blind is made of a plasticized glass woven fabric attached to a spring loaded roller, mounted on brackets and contained within a blind cover; the whole assembly is bolted to the front of the side-wall panel





R

Interior Lining and Soundproofing
Figure 001



R

Cabin Windows
Figure 002

in the window aperture. The bottom edge of the blind is made rigid with an edge stiffener, and also provides a mounting for the blind handle. The blind has an up-down movement; it is retained in any position by friction pads attached to the ends of the stiffener, and spring loaded into guide tracks on both sides of the window aperture. Removable window inserts permit access to the windows and window blind mechanism.

R The ceiling panels are fitted between the light shades on each side of the fuselage and comprise inner and outer panels generally four frame bays in length. They are removable to give access to aerial cable conduits clamped to the main support structure. The transverse joints of the ceiling panels are concealed by decorative cross-over strips made of, Tedlar decorative film covered, aluminium alloy. The panels are of fibreglass-honeycomb construction with a plastic film on the outboard face of the panel, to avoid collection of moisture from condensation.

Located behind the stowage bins (Ref. 25-21-00) are the systems panels which give access to the various passenger services. Apertures and mountings for the passenger compartment air distribution, oxygen and electrics are built into the systems panels which are of fibreglass-honeycomb construction.

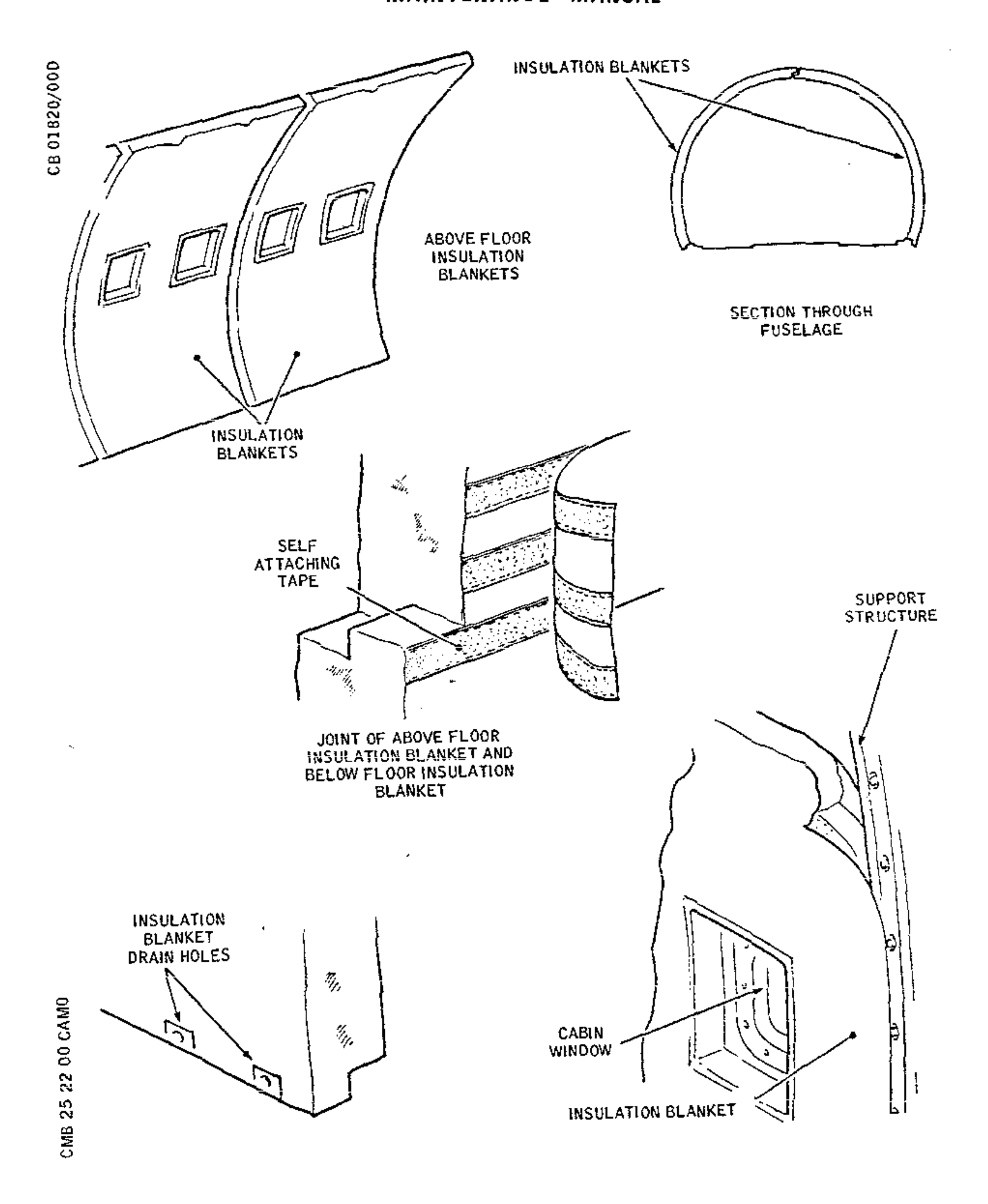
The airflow fairing screens the bottom of the luggage bin support structure and directs airflow into the passenger cabin.

3. Insulation, Support Structure and Frame Wrapping
(Ref. Fig. 003)

The cabin is thermally insulated and sound proofed with glass wool insulation blankets and frame wrappings which follow the contour of the aircraft structure.

The resin impregnated glass fibre structure, which provides support for the insulation and a mounting for the furnishing panels, consists of U-section channel members joined to form an arch within the aircraft structure.

Support channel members are provided at every fourth frame, and at door cut-outs. Because the sidewall panels extend over only two frame bays an intermediate support structure is provided, and these extend from the floor beams to the luggage bin lower attachment lug. Quick-release fastener receptacles are fitted to the support structure approximately every eight inches along its length, matching the quick-release studs and cups on the clamping strips.



Insulation Blankets
Figure 003

Each insulated blanket consists of layers of glass wool contained in fire-resistant Nomex paper fabricated with waterproof adhesive, stitching and self attaching tape. The blankets are generally two frame bays in length and extend in height from a joint with the underfloor blankets just above foor level to the centre line of the fuselage at the top of the aircraft. They incorporate drain holes and apertures for the windows and in the region of the forward cabin and toilet are made integral with air extraction ducts.

SIDEWALL PANELS - REMOVAL/INSTALLATION

CAUTION: (1) PRESERVE THE SHAPE OF THE SIDEWALL PANELS AND AVOID MARKING THE DECORATIVE FINISH.

(2) OBSERVE THE ELECTRICAL PRECAUTIONS DETAILED IN 24-00-00.

1. General (Ref. Fig. 401)

The sidewall panels are generally two frame bays in width and carry the window inserts and the blind boxes. The panels and the methods of attachment are similar except where the aircraft structure, such as doors, dictates otherwise. The blind boxes can be removed separately and the procedure is included in this topic.

2. Sidewall Panels

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque-set Screwdriver	-
Cleaning Solvent Methylethylketone (MEK)(Ref.20-30-00, No.470)	-
Boscoprene 2402 (Ref. 20-30-00, No. 238)	-

B. Prepare to Remove

(1) Electrically isolate the sidewall lighting by tripping the appropriate cabin lighting circuit breaker. Fit safety clips listed below.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
FWD CABIN CEILING LTS SUP	14-215	L453	D10
FWD CABIN WALL LTS SUP	14-216	L452	C 9

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
R AFT CABIN WALL LTS SUP	14-216	L451	A 9
R AFT CABIN RH CEILING LTS SUP	14-215	L454	C10

(2) Move the adjacent passenger seats forward and aft to their fullest extent.

(3) Insert a screwdriver through the slot in the air fairing and undo the screw securing the air fairing panels. Unhook the air fairing from the hinge pins and remove.

(4) Unfasten the screws securing the sidewall lighting tube sockets and remove the light fittings. If any of the sidewall securing screws are obscured by a light fitting mounting bracket, turn the bracket to one side after removing one of the two securing screws.

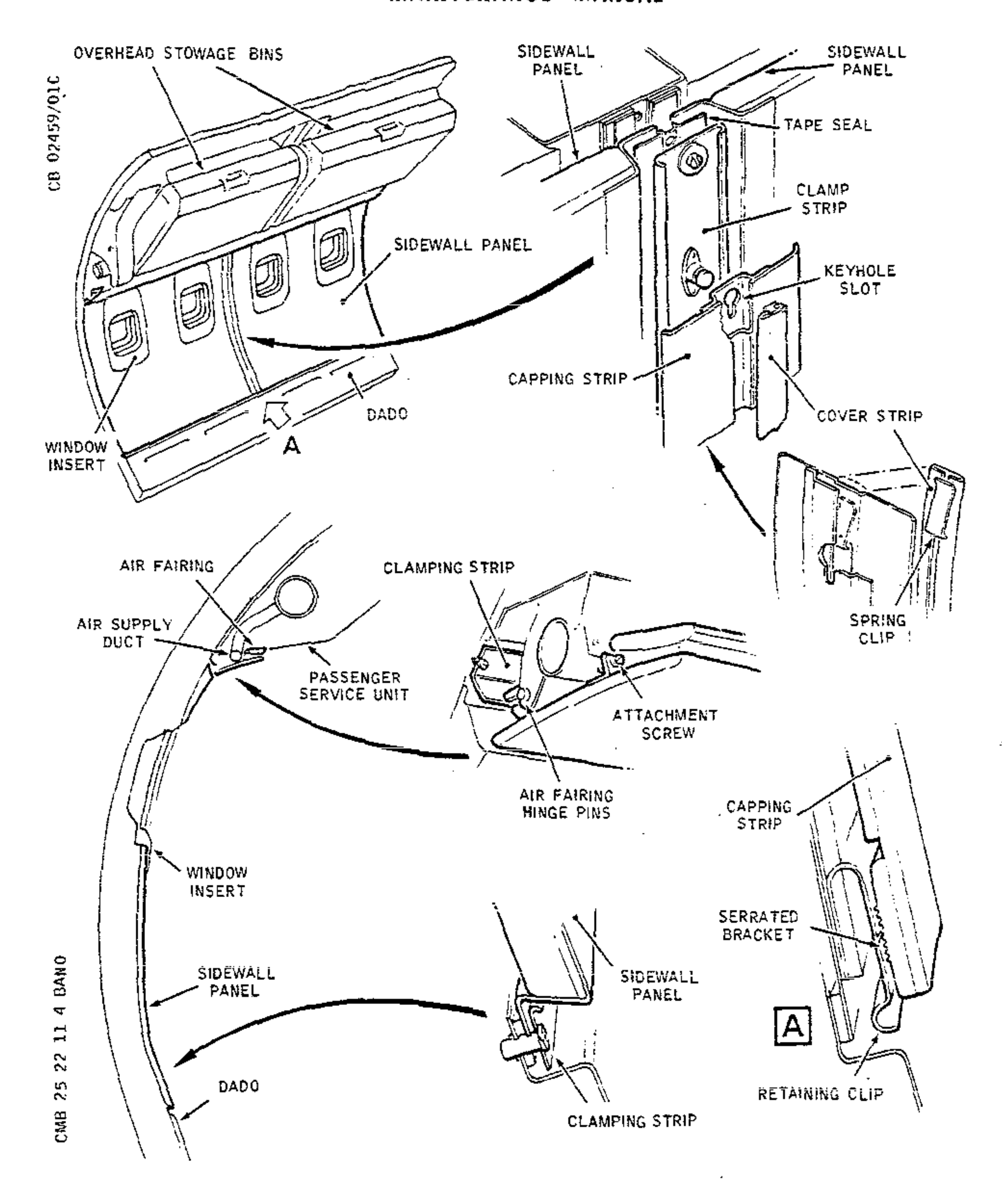
(5) Cut the tie-wrap securing the flexible air supply tube to the sidewall panel and disconnect the air supply.

(6) Remove the capping strips on each side of the sidewall panel. These are mounted in keyhole slots and are secured at the bottom by a spring clip which engages in a serrated bracket. To remove, place a screwdriver against the spring clip and press in the outboard direction. Pull the capping strip downward to disengage the keyhole slots and remove.

(7) Remove the clamping strips on each side of the sidewall panel and peel off the tape seals
R which are held by an adhesive; discard the seal.

(8) Remove the clamping strip from the bottom edge of the sidewall panel.

NOTE: A small number of non-standard fill-in panels and strips may be encountered. These must be treated individually on the general lines of these instructions. There are also flush fitting capping strips in certain positions.



R Sidewall Panels
Figure 401

The fastening of these differs in that they are clipped into position.

C. Remove

(1) Loosen the screws securing the top edge of the sidewall panel.

(2) Lift the foot of the panel inboard. Lower to disengage the top edge and remove.

(3) To separate the window inserts from the sidewall panel, press the fingers under the two bottom corners and release the spring clips. Peel slowly upwards to release the middle spring clips and pull downwards and inwards to remove.

D. Install

(1) Engage the top edge of the panel behind the top clamping strip. Place the panel in position and fit the bottom clamping strip.

(2) If necessary, adjust the floating window shroud on the rear of the blind box to allow the sidewall panel to fit correctly in relation to the structural window. Secure the panel with top and bottom clamping strips.

(3) Fit a new tape seal across the joint between adjacent panels :

NOTE: The tape seal is supplied in roll form and fastener holes are omitted.

(a) Clean the surfaces of the sidewall panel to which the tape seals have been bonded, with a clean lint-free cloth moistened with cleaning solvent MEK ensuring that all traces of cured adhesive are removed. Wipe dry with a clean cloth.

(b) Position the tape seal so that it covers the centre joint; cut the seal to length as necessary.

(c) Pierce the tape seal for the fasteners securing clamping strip.

(d) Bond the tape seal to the sidewall panels with adhesive (Ref. 20-25-15), so that the bellows part of the seal is not in tension.

(4) Fit the vertical clamping strips and tighten all clamping strip screws handtight.

(5) Fit the flexible air supply tube above the window positions and secure with a new tie-wrap.

(6) Refit the sidewall lighting and air fairing.

(7) If the window inserts have been separated, refit by engaging the two tongues at the top and pressing firmly into position at the clip locations.

(8) Fit the capping strips. Locate them in the keyhole slots and raise to engage the serrated block on the spring catch. By levering from below, move the capping strip up until the top is within approximately 0.005 in of the air fairing.

NOTE: The capping strips are adjusted during original assembly to be a neat fit on the clamping strips. If re-adjustment should be required, proceed as follows.

(9) Remove the narrow cover strip in the centre of the capping strip by peeling it from the adhesive bond.

R **ON A/C 005-007,

Remove the narrow cover strip in the centre of the capping strip by sliding it downwards, using the fingers, to disengage the clips from the attachment holes.

(10) Adjust the contour of the capping strip as necessary by turning the keyhole slot guide screws.

(11) Refit the cover strip using Boscoprene 2402 adhesive (Ref. 20-25-15).

R **ON A/C 005-007,

Refit the cover strip by engaging the clips in the holes in the capping strip and sliding the strip upward using the fingers.

(12) Reset the circuit breakers previously tripped, and check that the sidewall lighting is operating.

(13) Clean the decorative finish as necessary using a

damp cloth.

(14) Restore the passenger seats to their original positions and replace the seat rail covers.

3. Blind Box Assembly (Ref. Fig. 402)

CAUTION: TAKE CARE NOT TO MARK THE SURFACE OF THE GLAZING PANEL.

A. Equipment and Materials

DESCRIPTION	PART NO.
Boscoprene 2402 (Ref.20-30-00,No.328	-
Silicone sealant RTV731 (Ref. 20-30-00, No. 364)	-
Pyrac covering material CM 338 (Ref. 20-30-00, No. 126)	-
Seal CM 340. 8in (203.2 mm)X 0.4 in (10.16 mm) X 0.25 in (6.35 mm)	-
Seal CM340 8 in (203.2 mm) X 0.5 in (12.7 mm) X 0.19 in (4.82 mm)	-

B. Remove

NOTE: For disassembly of the blind box following removal from the aircraft, refer to para.C.

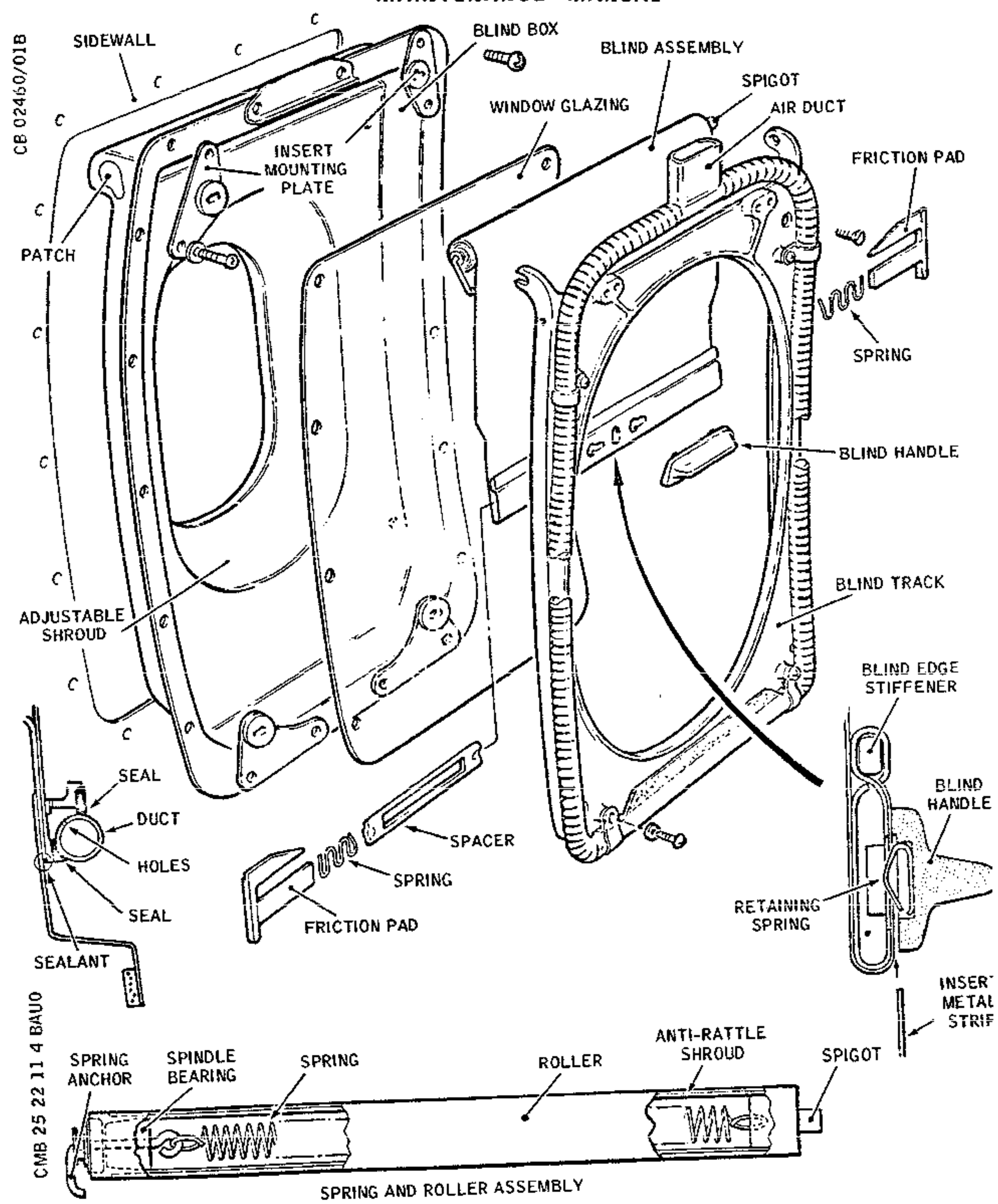
(1) Remove the window insert and the blind box:

(a) Remove the window insert from the sidewall panel (Ref. Fig. 401) by inserting fingers under the bottom two corners and pulling gently inwards to release the spring clips. Peel slowly upwards to release the middle spring clips, then carefully remove the insert from the attachment holes at the top of the sidewall panel.

(b) Remove the 18 screws around the edge of the blind box, together with the four insert mounting plates and lift out the blind box assembly.

C. Disassemble Blind Box

(1) Remove the four screws securing the air duct clamps



Blind Box Assembly
Figure 402

R

to the blind track; remove the duct.

(2) Ensure that the blind is in the 'up' position to reduce the possibility of damage and remove the screws securing the blind track and window glazing to the blind box.

(3) Remove the blind and roller assembly from the blind track:

(a) Remove the blind handle by inserting a suitable metal strip 0.022 in thick X 0.5 in wide (0.6 X 12.7 mm) into the slot at the back of the handle to depress the spring clip. Slide the handle to the left and remove it from the keyhole slots.

(b) Disengage the spring anchor from the blind track and slide the rolled-up blind from the track. Take care to restrain the friction pads and springs which are under spring pressure within the track.

(4) Withdraw the friction pad and spring from each end of the blind stiffener, and slide out the central spacer.

(5) Pull the spring-anchor outwards complete with the bearing and housing from the roller to expose the end of the tension spring. Unhook the spring from the anchor then withdraw it from the opposite end of the roller complete with spigot assembly and anti-rattle shroud.

NOTE: When withdrawing the housing it may be necessary to cut away the blind material locally to release the housing from adhesive.

(6) Remove the window glazing from the blind box by carefully peeling the glazing away from the edge sealant taking care to avoid scratching the polished surfaces.

R After SB 25-006 For A/C 003-007,

(7) Lift out window shroud.

D. Assemble Blind Box (Ref. Fig. 402)

(1) Insert the assembled spigot, spring and anti-rattle

shroud into the notched end of the roller tube. Then using a suitable tool, pull the free end of the spring through the roller, hook it onto the spring anchor assembly and insert the spring anchor housing into the roller.

(2) Insert the spacer into the blind edge stiffener and fit the spring and friction pads.

(3) Compress the friction pads and slide the blind edge stiffener assembly into the blind track.

(4) Install and tension the blind:

Before SB 25-006 For A/C 004-004, 006-006

Fit the blind roller to the blind track and check that the spigot revolves freely in its hole. Tension the roller spring by rotating the spring anchor clockwise or counter clockwise, as necessary, to enable the blind to hold at the fully down position. Lock the spring anchor by engaging it in the hole in the blind track.

R After SB 25-006 For A/C 003-007,

Assemble and tension the blind roller spring:

(a) Fit the blind roller to the blind track and fully wind the blind on to the roller until the friction pad abuts the stop. Check when winding the blind on to the roller that the roller spigot rotates freely in the blind track.

NOTE: Unnecessary friction on the spigot will affect the blind tension adjustment.

(b) Ensure that the spring anchor is free and untensioned then rotate it counter-clockwise two full turns and lock it by engaging the end in the hole in the blind track.

NOTE: When fitted in the blind box this tension should permit the blind to hold at any position within the track.

(5) Fit the blind handle by sliding it along the keyhole slots until the spring clip locks into position. Check that there is no free movement

between the handle and the blind. If necessary, adjust the two screws in the handle to achieve this.

(6) Clean the glazing panel using a chamois leather and clean water. The chamois leather must be free from all abrasive material. Polish the glazing panel with a clean, dry, lint-free cloth.

(7) Assemble the glazing panel and the blind track to the blind box:

(a) If the same glazing panel and/or blind box is being refitted remove the old sealant adhering to the blind box and the perimeter of the glazing panel.

(b) Prepare and apply silicone sealant, as instructed in 20-22-13, to the perimeter of the glazing panel using the minimum amount so as to form an air-tight seal between the panel and the blind box when assembled.

(c) Secure the glazing panel and track to the box with eight screws. Tighten the screws progressively from the centre of the window outwards using the minimum torque necessary to clamp the items together to avoid distorting the blind track.

(8) Fit the air duct:

(a) Assemble the duct to the blind box with the four screws and washers ensuring that the air supply holes are correctly orientated (see detail).

(b) Secure the two seals with sealant as instructed in 20-25-15.

(9) Check the operation of the blind to ensure that it functions correctly. If necessary, further adjustments to the spring tension are made, using the spring anchor through the adjacent hole in the blind box. On completion of adjustment, seal the access hole with Pyrac covering material adhered to the blind box using Boscoprene adhesive as instructed in 20-25-15.

E. Install Blind Box (Ref. Fig. 401)

(1) Refit the blind box and window insert:

(a) Refit the blind box and the four insert mounting plates using the 18 screws.

(b) Refit the window insert by inserting the tongues into the D-shaped holes in the top of the sidewall panel and then pressing the clips into the insert mounting plates.

SIDEWALL PANELS - APPROVED REPAIRS

1. General

A. Side wall panels are manufactured from Nomex/Phenolic resin impregnated fibreglass and the inboard surface is covered by Tedlar decorative film. The panels form the interior furnishing trim and, when removed, allow access to the insulation blankets. They are generally two frame bays in length, incorporate the windows and follow the contours of the aircraft structure. This repair allows for the replacement of the decorative film and repair of the expanded honeycomb core together with its covering skins of fibreglass.

RB B. The cabin window blinds are manufactured from a roller,
RB blind material and a stiffener. This repair allows for the
RB replacement of the blind material and re-using the original
RB roller and stiffener.

2. Equipment and Materials

	DESCRIPTION	PART NO.
	Warm air blower	-
	Wood spatula (local manufacture)	-
	Cleaning agent - BAC M302, (Ref. 20-30-00, No.473)	-
	Glass cloth - BS3396-3-P2-11 Grade S, (Ref. 20-30-00, No.168)	-
RB	Material	LA101T
RB	Adhesive	DR200-1LI
	Filler - EC3524 (CM141) (Ref. 20-30-00, No.381)	-
	Timonox (powder) fire retardent, (Ref. 20-30-00, No.148)	-
	Flammex - T23P (liquid) fire retardent, (Ref. 20-30-00. No.149)	-

DESCRIPTION	PART NO.
Adhesive - Bakelite/Versamid, (Ref. 20-30-00, Nos. 303, 305)	-
Tedlar decorative film - CM 535L (Ref. 20-30-00, No. A357) in the following colours:	-
Blue - SPPR 24377-7-M	
Dew grey - SPPR 24205-7-M	
Turquoise - 24164	

LEFT BLANK INTENTIONALLY

DESCRIPTION	PART NO.
Pale stone -	
Mauve - SPPR 24218-2-Q	
Pearl - SPPR 24217-1-Q	
R Multi-colour print, comprising: White background - SPPR 24700 Yellow print - SPPR 24685 Brown print - SPPR 24686 Refractions - SPPR 24783-7ME	
Chamois/Rose - SPPR 24659-Q	
Dark brown - SPPR 24618-2-7M	
Pure white - SPPR 24658-2-Q	
Tedlar decorative film - CM 538K (Ref.20-30-00, No.A356) to the following colours:	-
White/Cream	
Asteriods	
Maize Fiji - type D3	
Garnet paper - 150/180 grade	-

3. Tedlar Decorative Film

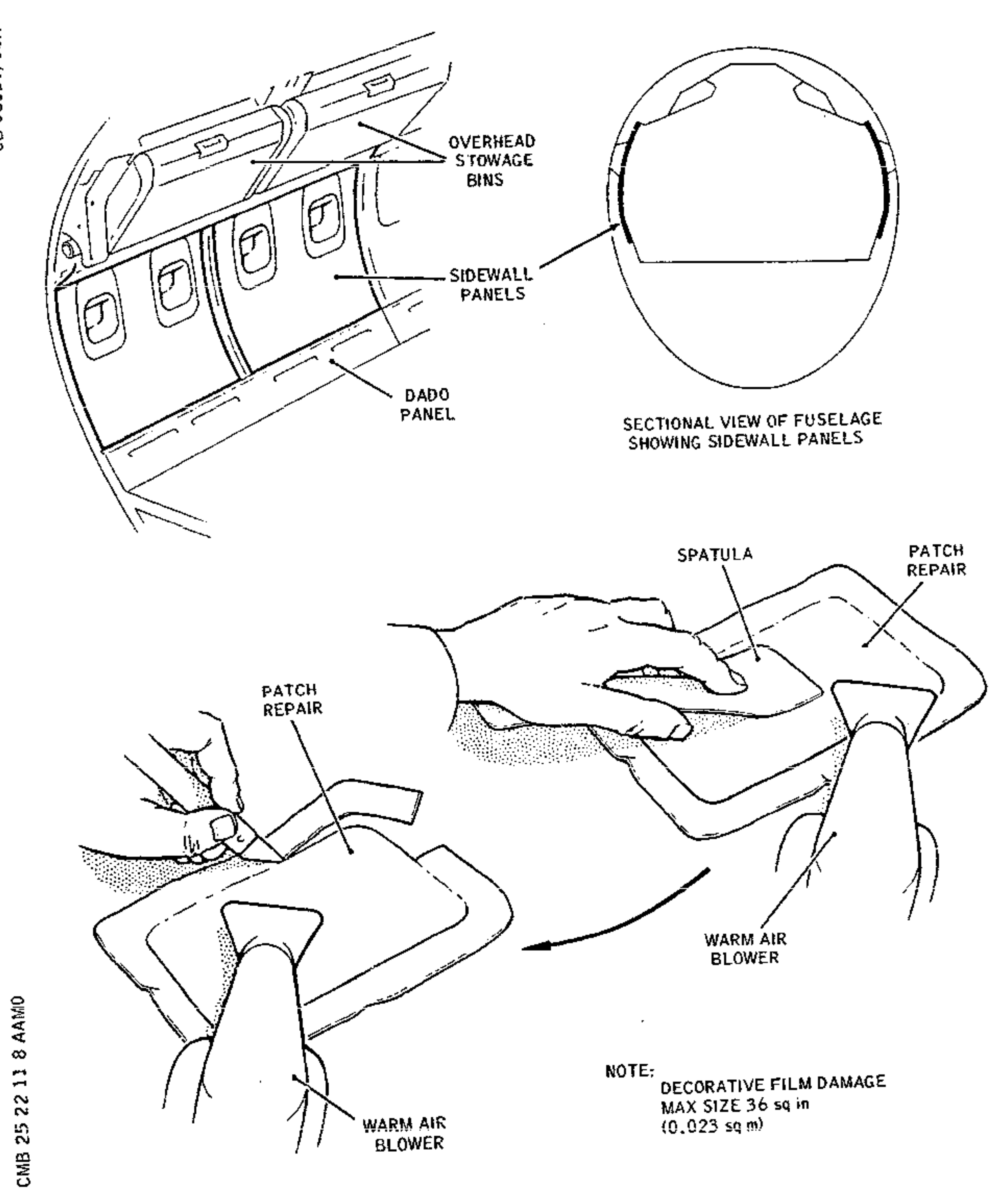
A. Limitations

(1) The sidewall panel must be removed from the aircraft and suitably supported to effect the repair.

R (2) The panel may be repaired providing that the damage
R does not extend over an area greater than 36 sq in
R (0.023 sq m). Where the damage is more extensive,
R the complete decorative film must be replaced.

B. Repair (Ref. Fig. 801)

(1) Remove the panel from the aircraft (Ref.25-22-11,



Tedlar Decorative Film - Repair
Figure 801

Removal/Installation).

(2) With a sharp knife, cut around the damaged area of the decorative film, taking care not to cut into the fibreglass skin underneath the film.

(3) Apply the warm air blower to the panel face and slowly peel off the damaged facing as the adhesive on the decorative film softens.

(4) Clean the exposed area with a clean cloth, moistened with BAC M302 solvent, removing all traces of the old adhesive.

CAUTION: THE SOLVENT MUST NOT BE ALLOWED TO COME INTO CONTACT WITH THE SELF-ADHESIVE SURFACE OF THE DECORATIVE FILM.

(5) Cut a new piece of Tedlar film to match the original, slightly oversize; remove the backing paper and position it over the repair area.

NOTE: The Tedlar decorative film conforms to two specifications: For CM 535L refer to 20-25-21 and for CM 538K refer to 20-25-22.

R (6) Apply the warm air blower to the repair area. Using
R a wooden spatula, ensure that the patch is smoothed out dispelling any air bubbles.

(7) Gently, trace around the outline of the repair area with a sharp knife until the excess decorative film can be removed.

4. Sidewall Panel - Nomex/Phenolic Resin Impregnated Fibreglass

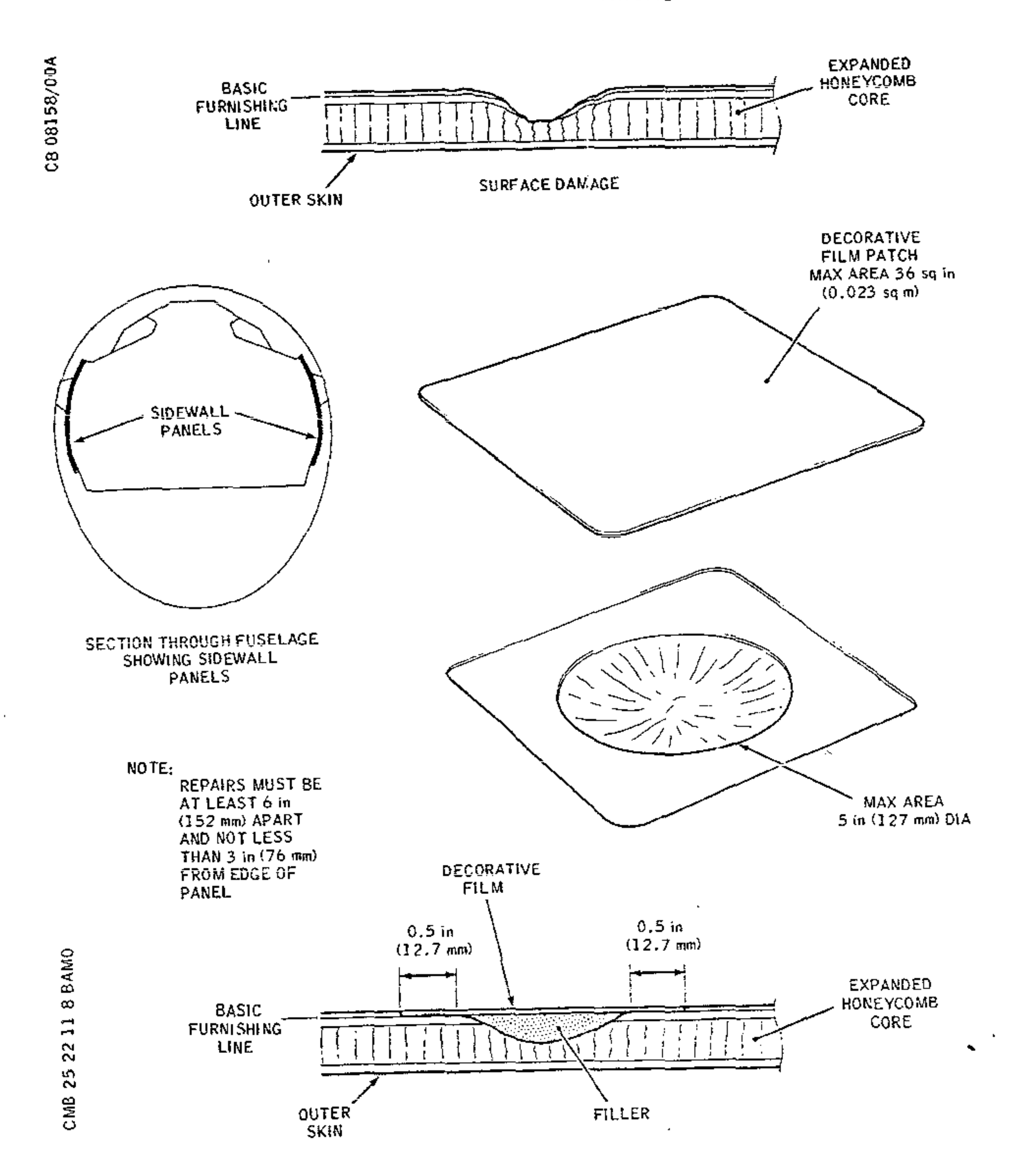
A. Limitations (Ref. Fig.802 and 803)

(1) The damaged panel must be removed from the aircraft for repair.

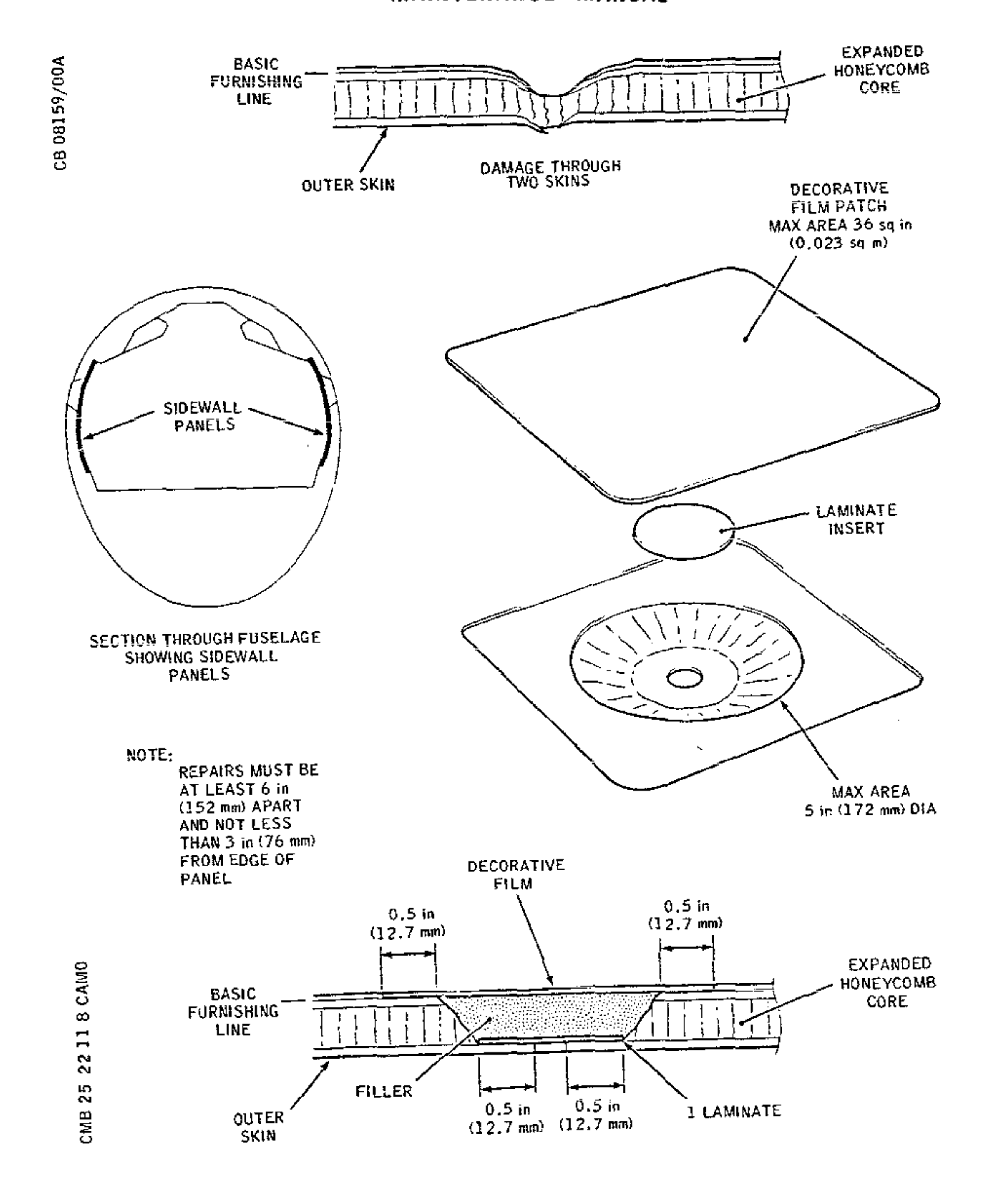
(2) The damage must be contained in an area of 5 in (127 mm) dia and must not be less than 3 in (76 mm) from the edge of the panel.

(3) Repairs must be at least 6 in (152 mm) apart.

(4) There are no limits on the number of repairs, on a single panel, providing that the limitations are observed.



Sidewall Panel - Single Skin Repair
Figure 802



Sidewall Panel - Double Skin Repair
Figure 803

R (5) Where one skin and core is damaged, the repair must be carried out as soon as possible in order to
R retain the fire resistant properties of the panel.

NOTE: A check must be made to ensure that the outer skin is not damaged.

(6) Where the core and both skins are damaged, the repair must be applied immediately in order to retain the
R fire resistant properties of the panel.

B. Single Skin and Core Repair (Ref. Fig. 802)

R (1) Remove the damaged panel from the aircraft
R (Ref.25-22-11, Removal/Installation).

(2) Repair the panel.

(a) Cut away the damaged inner skin.

R (b) Mix the EC 3524 filler (Ref.20-25-23).

(c) Fill the exposed honeycomb cavity with the prepared filler and allow to cure. Finish flush with the basic furnishing trim line (Ref. Fig. 802).

(d) Dry abrade the cured surface of the repair area to a fine matt finish.

(e) Remove all dust from the location.

(f) Clean the area, using a clean cloth moistened with BAC M302 solvent, then wipe dry.

(3) Cover the repair with matching Tedlar decorative film CM 535L or CM 538K (Ref. 20-25-21 or 20-25-22).

C. Double Skin and Core Repair (Ref. Fig. 803)

R (1) Remove the damaged panel from the aircraft
R (Ref.25-22-11, Removal/Installation).

(2) Cut away the damaged inner skin and the expanded honeycomb core.

R (3) Cut away the damaged outer skin (Ref. Fig. 803).

(4) Clean the damaged area of the outer skin with solvent BACM 302, then wipe dry.

(5) Position the glasscloth laminations on the outer skin to cover the damaged area and secure them with bakelite/versamid adhesive (Ref. 20-25-14).

(6) Mix the EC 3524 filler (Ref. 20-25-23), then fill the exposed cavity in the honeycomb core with the filler. Finish the filler flush with the basic furnishing trim line.

(7) Dry abrade the cured surface of the filler to a fine matt finish, and remove all dust.

(8) Clean the inner skin surface with solvent BACM 302, then wipe dry.

(9) Cover the repair with matching Tedlar decorative film CM535L or CM538K (Ref. 20-25-21 or 20-25-22).

RB 5. Cabin Window Blinds
RB (Part Nos. E716628500VA00 and E716628501VA00)

RB A. Limitations

RB (1) The blind must be removed from the aircraft to effect
RB this repair.

RB (2) The blind can be repaired providing that the roller and
RB stiffener can be re-used.

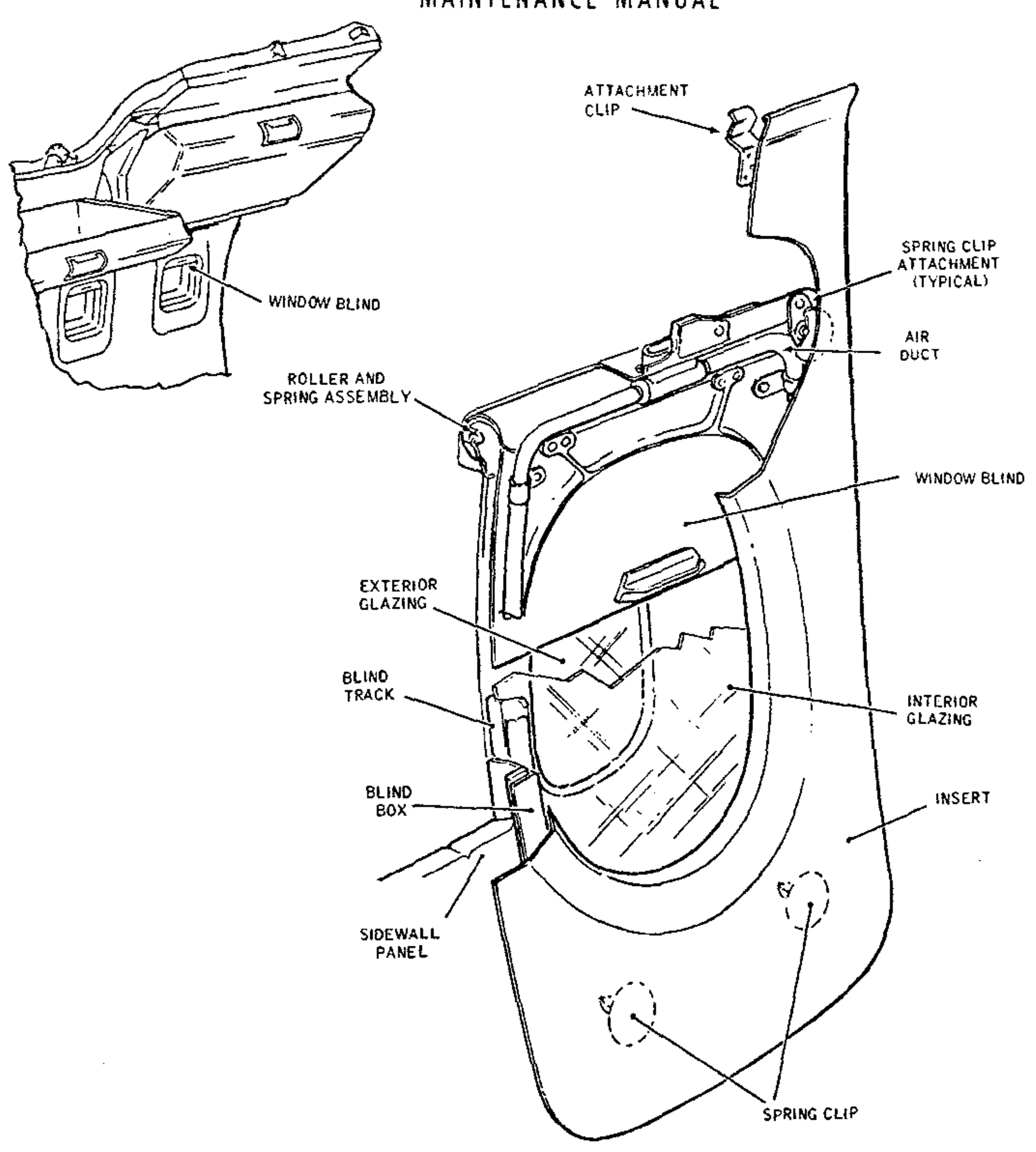
RB B. Repair (Ref. Fig. 802)

RB (1) Remove the blind box assembly from the aircraft (Ref.
RB 25-22-11, Removal/Installation).

RB (2) Disassemble the blind box and remove the roller
RB assembly and stiffener from the damaged blind for
RB re-use.

RB (3) Cut out a new blind from LA101T material using the old
RB blind as a pattern. The silver side of the material
RB is to face outboard.

RB (4) Bond in the roller and stiffener salvaged from the old
RB blind using adhesive part number DR200-1LI.



RB

Cabin Window Blind - Repair
Figure 802

CEILING PANELS - REMOVAL/INSTALLATION

CAUTION: (1) HANDLE THE PANELS WITH CARE TO AVOID MARKING OR SCRATCHING THE DECORATIVE FINISH.

(2) OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

R 1. General

The centre and outer ceiling panels are generally four bays in length, except where bulkheads dictate otherwise. Some centre ceiling panels have an insert to allow for a steward call light. The ceiling panel transverse joins are covered by a crossover feature, some of which house an emergency light assembly.

R 2. Ceiling Panels (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Screwdrivers	-
Flat blade tool	-
Boscoprene 2402 (Ref.20-30-00, No.328)	-
Cleaning Solvent Methylethylketone (MEK)(Ref.20-30-00,No.470)	-

B. Prepare to Remove

(1) Electrically isolate the main cabin roof lights, the night lights and emergency lanterns by tripping the appropriate circuit breakers. Fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
FWD CABIN CEILING LTS SUP	14-215	L453	D10
AFT CABIN CEILING LTS SUP	14-215	L454	C10
CABIN NIGHT LTS SUP	5-213	L455	D19

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
R R CABIN LTS BAT CHG & EXIT SIGN SUP	1-213	L831	Q22

(2) Lower the overhead stowage bins adjoining the areas in which ceiling panels are to be removed.

(3) Operate the slide catches to disengage the access panel from the roof fluorescent light lens and lower the panel on its hinges.

(4) Remove the screws and washers securing the fixed panel at each end of the fluorescent light lens. Slide the panel outboard to disengage it from the lens (Ref. Detail B).

C. Remove.

R (1) Crossover Feature (Ref. Fig. 401):

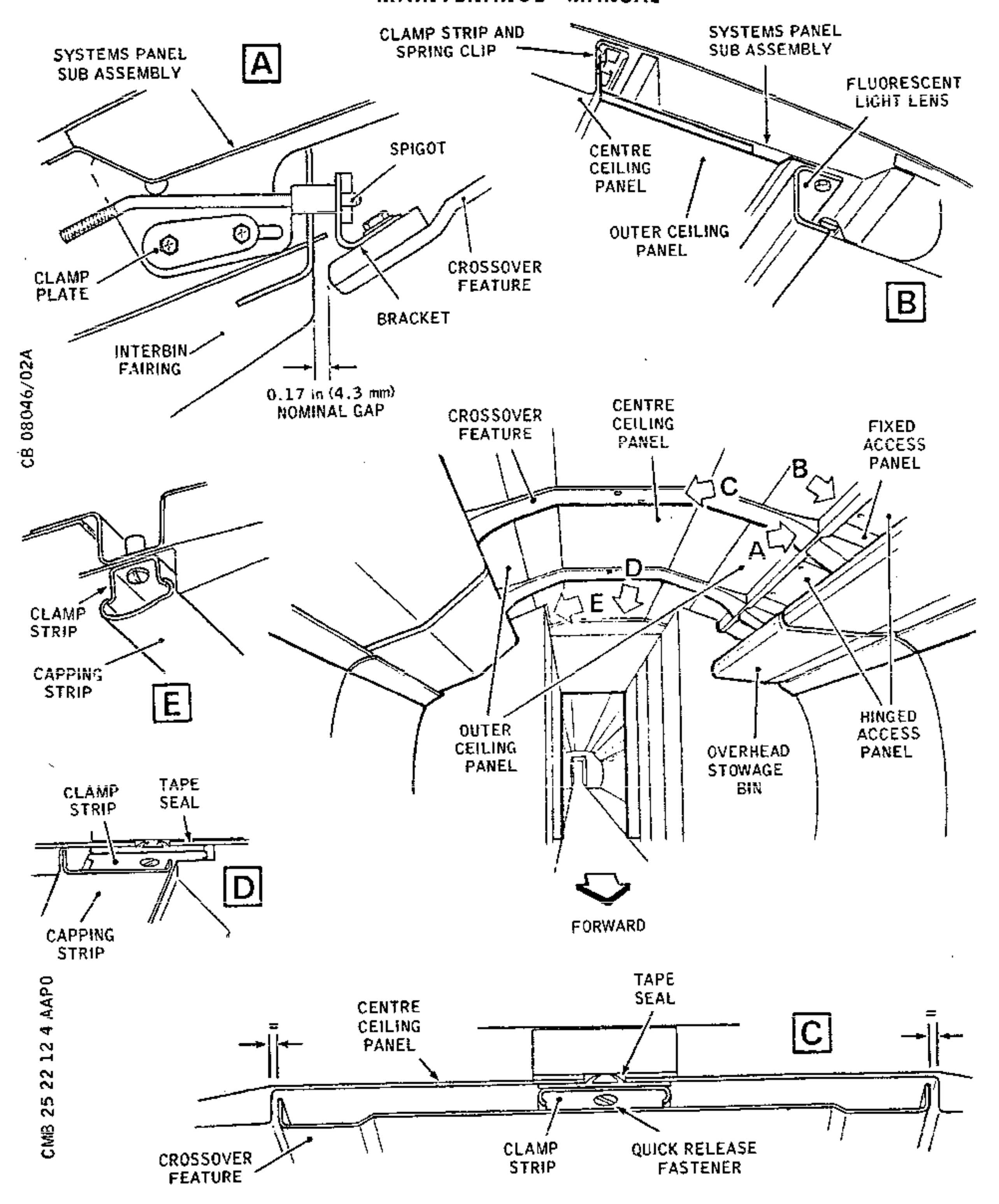
R R R (a) If applicable, remove the emergency lantern assembly from the crossover feature (Ref. 33-51-00, Removal/Installation).

R R R R R R R R R R (b) Support the crossover feature. Loosen the screws of the two clamp plates securing the slotted spigot assembly to the support angle on the systems panel sub assembly, at one end only of the crossover feature. Withdraw the spigots from the brackets at that end of the crossover feature, lower the crossover feature and slide it off the spigots at its other end. Access is obtained from behind the fluorescent tube lens (Ref. Detail A).

R (2) Outer Ceiling Panel:

R (a) Loosen the screws attaching the roof fluorescent light lens to the systems panel sub assembly (Ref. Detail B).

(b) Insert an appropriate flat-bladed tool in the gap between the outer ceiling panel and the centre ceiling panel to disengage the spring clips, then gently prise the outer ceiling



R

Ceiling Panels - Installation
Figure 401

panel out. When all the spring clips have been disengaged, slide the opposite edge of the outer ceiling panel clear of the roof lighting lens (Ref. Detail B).

(3) Centre Ceiling Panel.

(a) Unscrew the quick release stud fasteners attaching the clamp strips along the fore and aft flange each side of the ceiling panel (Ref. Detail B).

NOTE: The clamping strip securing the aft right-hand portion of the ceiling panel, at the aft end of the forward cabin (Fr.34 - bulkhead), is covered with a capping strip. Prise off the capping strip to gain access to the quick release fasteners (Ref. Detail E). R

(b) Support the ceiling panel being removed. Unscrew the quick release fasteners attaching the clamp strips along the transverse flange join at each end of the panel (Ref. Detail C). R

(c) Peel off the tape seals which are held by an adhesive, and lower the panel; discard the seals.

NOTE: The clamp strip, securing the transverse flange at bulkhead stations, has a capping strip which is attached by spring clips. Prise the capping strip off the clamp strip to gain access to the quick release fasteners (Ref. Detail D).

(d) Clean the surface of the ceiling panel transverse flanges to which the tape seals have been secured using a clean, lint-free cloth moistened with solvent MEK. Wipe dry with a clean cloth.

D. Install

(1) Centre Ceiling Panel:

(a) Comply with the electrical safety precautions.

(b) Position the ceiling panel and secure with clamp strips along the fore and aft flange at each side of the panel. Ensure that the spring clips fitted to the clamp strip are off set in the correct direction (Ref. Detail B).

(c) Fit a new tape seal at each transverse panel joint:

NOTE: The tape seal is supplied in roll form with fastener holes omitted.

(c1) Position the tape seal so that it covers the entire joint; cut the seal to length as necessary.

(c2) Pierce the tape seal for the quick-release fasteners securing the clamp strip.

(c3) Bond the tape seal to the ceiling panel with adhesive (Ref.20-25-15), so that the bellows part of the seal is not in tension.

(d) Fit the clamp strips along the transverse flange join at each end of the panel and tighten all quick release fasteners hand tight
R (Ref. Detail C).

NOTE: The transverse flange clamp strip at bulkhead stations is covered with a capping strip, secured by spring clips (Ref. Detail D).

The clamp strip securing the aft right-hand portion of the ceiling panel at the aft end of the forward cabin (Fr 34-bulkhead), is covered with a capping strip clipped over the clamp
R strip (Ref. Detail E).

(2) Outer Ceiling Panel:

(a) Comply with the electrical safety precautions.

(b) Check that the screws, attaching the roof fluorescent light lens to the systems panel sub assembly, are loosened.

(c) Slide the outboard edge flange of the ceiling panel into the gap between the light lens and the systems panel sub assembly. Press the opposite edge in, to engage the spring clips fitted on the clamp strips (Ref. Detail B).

(d) Tighten the screws attaching the roof fluorescent light lens.

(1) Crossover feature (Ref. Fig. 401):

(a) Comply with the electrical safety precautions.

(b) Initial installation:

(b1) Position the crossover feature to give equal gaps between the crossover feature and the ceiling panels/interbin fairings. Maintain the gaps and adjust the forward brackets on the crossover feature, to align the hole in each bracket with the corresponding spigot on the systems panel sub assembly.. Tighten the screws securing the forward bracket. Torque load to 12 lbf in (0.14 mdaN). Adjust the rear brackets on the crossover feature to ensure the spigots engage in the forward end of the slot in the bracket. Tighten the screws to secure the rear brackets. Torque load to 12 lbf in (0.14 mdaN).

(b2) Ensure each slotted spigot assembly is located securely in the respective hole or slot in the bracket on the crossover feature. Tighten the clamp plate screws. Access is obtained from behind the fluorescent light lens (Ref. Detail A).

(c) Normal installation:

(c1) Position the crossover feature and, ensuring that each slotted spigot assembly is securely located in the respective hole or slot in the bracket on the crossover feature, tighten the clamp screws. Access is obtained from behind the fluorescent light lens (Ref. Detail A).

(d) If applicable, install the emergency lantern assembly in the crossover feature (Ref. 33-51-00, Removal/Installation).

D. Conclusion

(1) Fit the fixed panel at each end of the fluorescent light lens and secure with screws and washers.

(2) Close the hinged access panel and ensure that the slide catches engage the bottom edge of the light lens.

(3) Close the overhead stowage bins.

(4) Reset the circuit breakers previously tripped.

CABIN CEILING LIGHTING REFLECTOR ASSEMBLIES - APPROVED REPAIRS

1. General

A. Repair Schemes

RS 25-60820 is applicable for the replacement of cracked, broken or discoloured reflector assemblies.

AIR VANE AND FAIRING - REMOVAL/INSTALLATION

CAUTION: HANDLE THE AIR VANE AND FAIRING WITH CARE TO AVOID MARKING THE DECORATIVE FINISH.

1. General (Ref. Fig. 401)

The air vane and fairing is approximately two frame bays in length, except where bulkheads dictate otherwise. The method of attachment is applicable to all of them.

2. Air Vane and Fairing (Ref. Fig. 401)

A. Remove

(1) Undo the screws securing the air vane and fairing; manoeuvre it clear of the attachment brackets and disengage the hinge fittings from their brackets. Remove the vane and fairing.

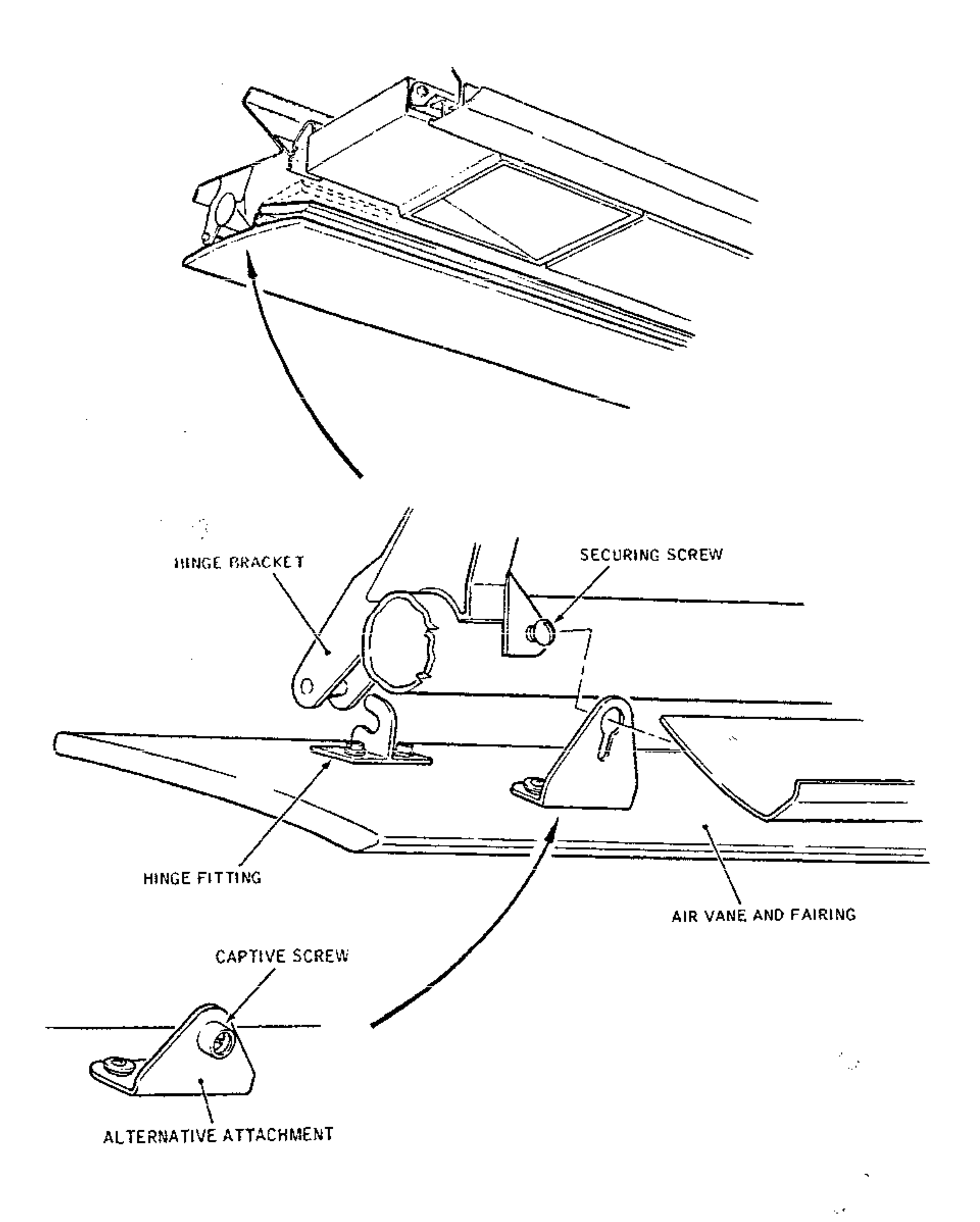
NOTE: Access to the screws is through the slot in the air vane and fairing. The screws are located near each end.

B. Install

(1) Engage the air vane and fairing hinge fittings to their hinge brackets. Raise the fairing to align the attachment holes at each end; tighten the screws.

(2) Clean the assembly using a damp cloth.

CB 08079/00A



CMB 25 22 21 4 AAMO

Air Vane & Fairing - Installation
Figure 401

**ON A/C 001-001,

DADO PANEL ASSEMBLY - REMOVAL/INSTALLATION

CAUTION: HANDLE AND STORE THE DADO PANELS WITH CARE TO AVOID DAMAGING THE DECORATIVE FINISH.

1. General

The dado panel assembly completes the furnishing trim between the sidewall and the floor. It consists of various lengths of dado panels joined by cover plates and terminated at various points by end pieces. Each panel is of aluminium construction, and incorporates air extraction louvres.

2. Dado Panel Assemblies (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque screwdriver 0-10 lbf in (0-0.113 mdaN) range	-
R BACM 302 (Ref. 20-30-00, No.473) R Cleaning solvent	-
Boscoprene 2402 (Ref.20-30-00 No.328)	-

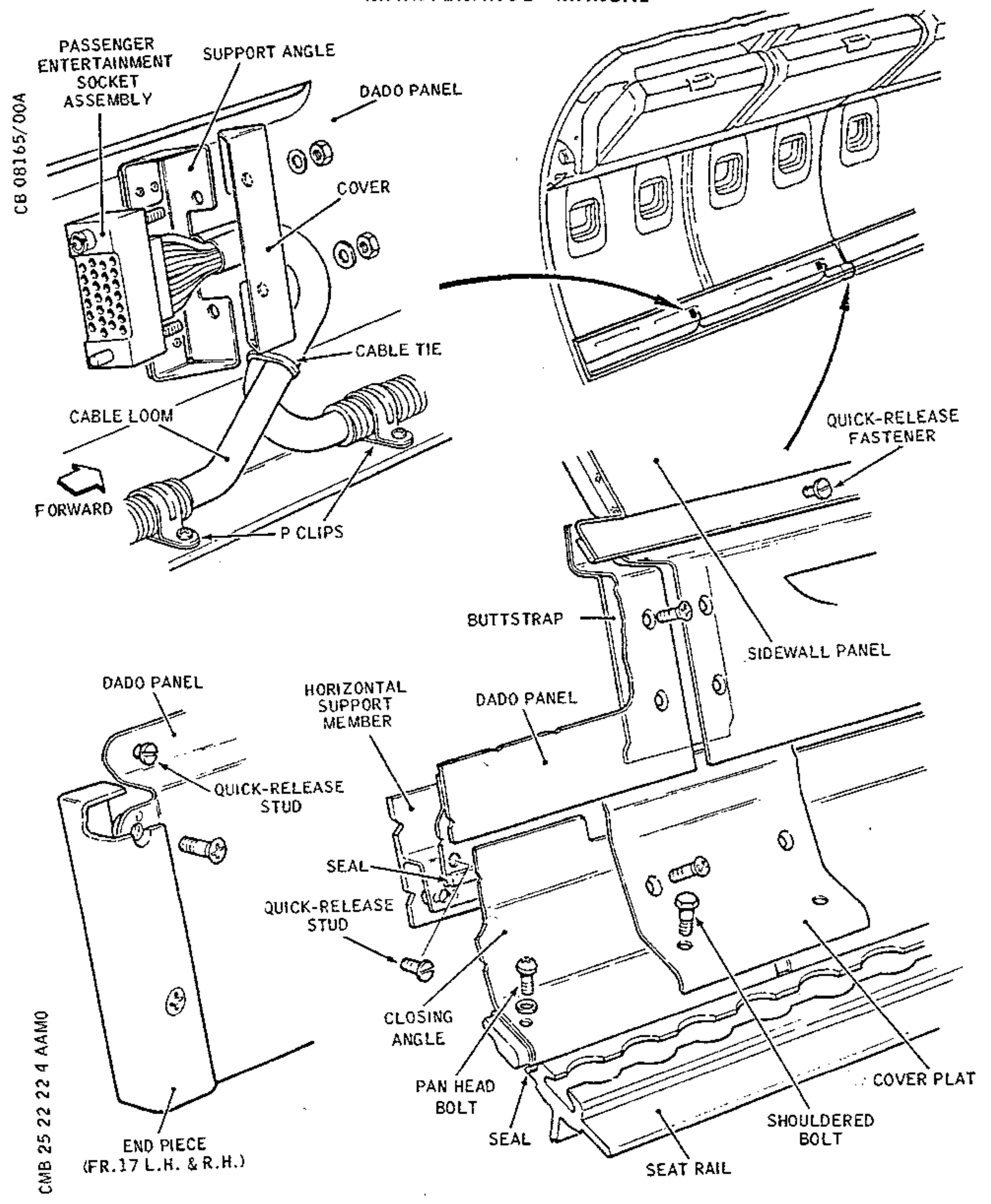
B. Remove

CAUTION: WHEN REMOVING PANELS AT THE FLOOR-TO-SIDEWALL JUNCTION TAKE CARE NOT TO DROP FASTENERS, WASHERS OR OTHER FOREIGN OBJECTS THROUGH THE INTERSPACE TO BELOW FLOOR AREA.

NOTE: The dado panels at the forward end and the aft end of the forward passenger compartment, and the forward end of the rear passenger compartment, can only be partially removed due to the passenger entertainment cable loom installation.

(1) Remove the seat rail capping strips, and the passenger seat units adjacent the dado panel to be removed (Ref. 25-24-11, Removal/Installation).

(2) Peel away the strip of carpet along the closing angle



Dado Panel - Installation
Figure 401

to gain access to the passenger entertainment system cable conduit.

(3) Remove the bolts securing the conduit P clips to the closing angle.

(4) Remove the nuts and washers securing the passenger entertainment socket assembly and its cover to the support angle on the dado panel. Remove the cover and the socket from the support angle.

(5) Remove the shouldered bolts and the countersunk bolts which secure the cover plate over the join between each closing angle; remove the cover plate.

(6) Remove the pan head bolts and washers securing the closing angle to the seat rail flange. Remove the closing angle by easing its lower edge up and over the seat rail and at the same time lowering its upper edge from under the lower edge of the dado panel.

(7) Remove the countersunk bolts which secure the dado panel to the buttstrap at each vertical joint, and to the end piece, where appropriate.

NOTE: An end piece is fitted to the dado panels which abut the bulkheads at the front and rear ends of the forward passenger compartment.

(8) Undo the quick-release fasteners securing the vertical edges and bottom edge of the appropriate sidewall panels to allow the lower edge of the panels to be moved inboard and disengaged from the dado panels (Ref. 25-22-11, Removal/Installation).

(9) Undo the quick release studs securing the top edge of the dado panel to the frame hoops.

(10) Undo the quick-release studs securing the bottom edge of the dado panel to the horizontal support member.

(11) Ease the bottom of the sidewall panels inboard, then pull the dado panel inboard and downward to disengage the top edge of the dado from behind the sidewall bottom flange.

C. Install

(1) Check that the seals on the dado panel and the closing angle are clean and undamaged, if not, replace the seals as follows:

R (a) Using the old seal as a template, cut the new
R seal to the required length.

R (b) Strip away the old seal and remove as much of
R the old adhesive as possible. Clean the surface
R using cleaning solvent.

R (c) Bond the new seal to the cleaned surface using
R Boscoprene 2402 adhesive (Ref. 20-25-15).
R Ensure that seals with a neoprene edge are
R installed with the neoprene edge facing away
R from the bonded surface.

(2) Check that the quick-release fasteners along the vertical edges and the bottom edge of the appropriate sidewall panels have been released.

(3) Ease the bottom of the sidewall panels inboard and pass the top edge of the dado panel outboard and upwards to engage it behind the sidewall flange. Where an end piece is fitted, locate the dado panel behind it.

NOTE: An end piece is fitted to the dado panels which abut the bulkheads at the front and rear ends of the forward passenger compartment.

(4) Tighten the captive quick release studs to secure the top edge of the dado panel to the frame hoops.

(5) Tighten the captive quick-release studs to secure the bottom edge of the dado panel to the horizontal support member.

(6) Secure the dado panel to the buttstrap under the the join at each end of the dado or to the end piece,
R as appropriate with bolts. Torque-tighten the bolts
to between 8 and 10 lbf in (0.090 and 0.113 mdaN).

(7) Tighten all fasteners securing the sidewall panels and fit the capping strips (Ref. 25-22-11, Removal/Installation).

(8) Pass the top edge of the closing angle assembly outboard and upwards to engage it in the slot behind the lower edge of the dado panel. Ensure that the lower edge of the closing angle rests on the seat

rail flange. Do not secure it at this stage.

(9) Fit the cover plate over the join between the closing angles at each end, by inserting the top edge of the cover plate beneath the dado panel. Secure it to the closing angles with shouldered
R bolts and countersunk bolts. Torque-tighten the bolts to between 8 and 10 lbf in (0.090 and 0.113 mdaN).

(10) Secure the closing angle to the seat rail flange
R with washers and pan head bolts. Torque-tighten the bolts to between 8 and 10 lbf in (0.090 and 0.113 mdaN).

(11) Fit the passenger entertainment socket assembly and its cover to the support angle on the dado panel. Secure them with washers and nuts.

(12) Position the conduit P clips on the closing angle and secure them with bolts.

(13) Attach the carpet trim to the closing angle and dado with Boscoprene 2402 (Ref.20-25-15) to conceal the cable conduit.

(14) Install the passenger seat units and seat rail capping strips (Ref. 25-24-11, Removal/Installation).

**ON A/C 002-005,

DADO PANEL ASSEMBLY - REMOVAL/INSTALLATION

CAUTION: HANDLE AND STORE THE DADO PANELS WITH CARE TO AVOID DAMAGING THE DECORATIVE FINISH.

1. General

The dado panel assembly completes the furnishing trim between the sidewalls and the floor. It consists of various lengths of dado panels joined together by joint plates and terminated at various points by end plates and, in one position forward of the right-hand intermediate toilet,by a sealing panel. Each dado panel is of glass fibre sandwich construction and incorporates air extraction louvres and passenger entertainment system plug box covers.

2. Dado Panel - Typical (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque screwdriver 0-10 lbf in (0-0.113 mdaN) range	-
Cleaning solvent BACM 302 (Ref. 20-30-00, No.473)	-
Adhesive Boscoprene 2402 (Ref. 20-30-00, No.328)	-

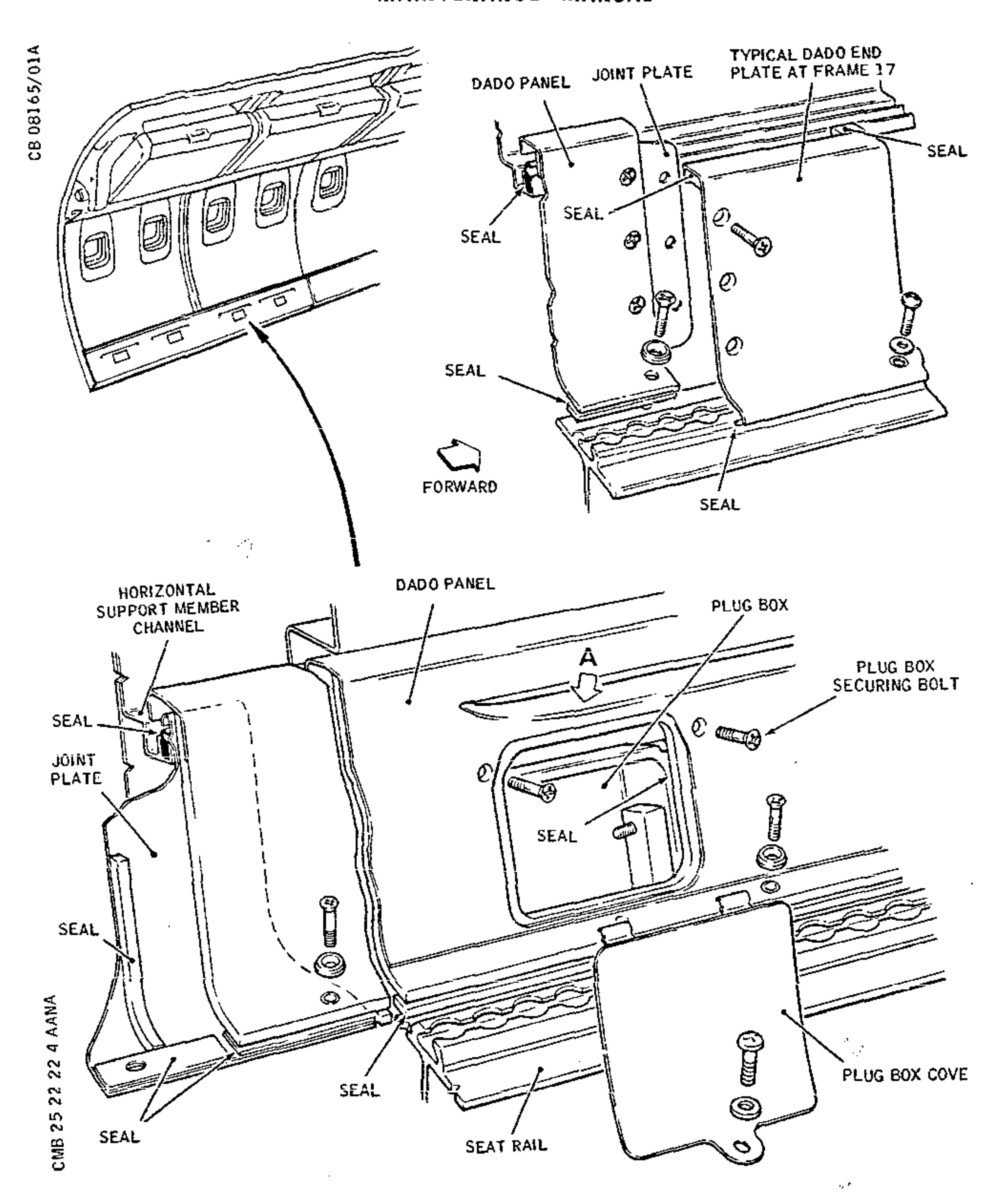
B. Remove

CAUTION: WHEN REMOVING PANELS AT THE FLOOR TO SIDEWALL JUNCTION TAKE CARE NOT TO DROP FASTENERS, WASHERS OR OTHER FOREIGN OBJECTS THROUGH THE INTERSPACE TO BELOW FLOOR AREA.

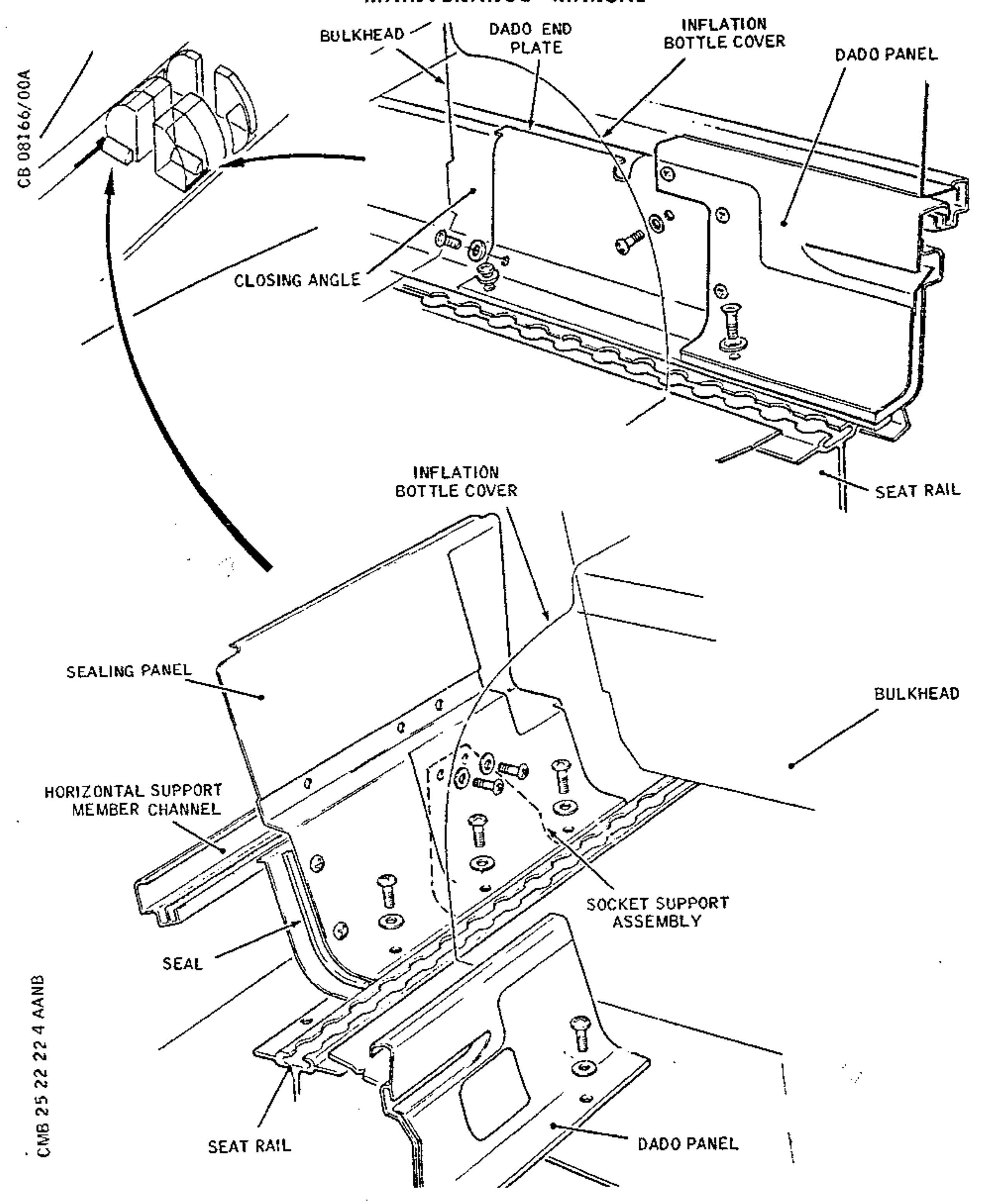
(1) Remove the seat rail capping strips and the passenger seat units adjacent the dado panel to be removed (Ref. 25-24-11, Removal/Installation).

(2) Remove the cover from the passenger entertainment plug box, where fitted:

(a) Remove the screw and washer securing the plug



Dado Panel - Forward Passenger Compartment -
Installation (Sheet 1 of 3)
Figure 401



Dado Panel - Forward Passenger Compartment -
Installation (Sheet 2 of 3)
Figure 401

**ON A/C 002-005,

Dado Panel - Rear Passenger Compartment -
Installation (Sheet 3 of 3)
Figure 401

box cover to the dado panel.

(b) Pull the cover downward to disengage the spring clips retaining the top edge of the cover to the dado panel; remove the cover.

(3) Remove the plug boxes from the dado panel:

(a) In the forward passenger compartment (Ref. Fig. 401)

(a1) Remove the two bolts securing the plug box to the dado panel.

(b) In the rear passenger compartment (Ref. Fig. 401).

(b1) Remove the two bolts securing the plug box strap assembly to the dado panel.

NOTE: The plug box is mounted behind the dado panel and is hinged to the seat rail flange. It remains in position when the dado panel is removed.

(4) Remove the screws and washers securing the lower edge of the dado panel to the seat rail flange. Lift the dado panel to disengage its top lip from the horizontal support member channel, take care not to damage the seal that runs the length of the 'inboard channel', remove the panel.

NOTE: A dado end plate completes the dado run at the forward end of the forward passenger compartment on the left hand side. If the adjoining dado panel is being removed, remove the bolts securing the panel to the joint plate.

(5) Remove the joint plate, if required:

(a) If two adjoining dado panels have been removed, lift the joint plate to disengage its top lip from the horizontal support member channel.

(b) If only one dado panel has been removed, remove the remaining bolt and washer securing the bottom edges of the joint plate and the adjoining dado panel to the seat rail flange. Slide the joint plate along the horizontal support member until clear of the dado panel, then lift the joint plate to disengage its top lip from the support member channel.

C. Install

NOTE: Torque tighten all bolts to between 8 and 10 lbf in (0.09 and 0.113 mdaN).

(1) Check that the seals on the dado panels, joint plates, end pieces, end plates and in the inboard channel of the horizontal support member are intact. If any of the seals are damaged or unduly distorted, renew the seal as follows:

(a) Using the old seal as a template, cut the new seal to the required length.

(b) Strip away the old seal and remove as much of the old adhesive as possible. Clean the surface using cleaning solvent.

R (c) Bond the new seal to the cleaned surface using
R Boscoprene 2402 adhesive (Ref. 20-25-15).
R Ensure that seals with a neoprene edge are
R installed with the neoprene edge facing away
R from the bonded surface.

(2) Fit the joint plate by engaging its top lip in the inboard channel of the horizontal support member. Align the holes in its bottom edge with those in the seat rail flange, and in the adjoining dado panel, if fitted.

(3) Secure the plug boxes to the dado panel:

(a) In the forward passenger compartment (Ref. Fig. 401).

(a1) Position the dado panel to align with the passenger entertainment plug boxes, and engage its top lip with the outboard channel of the horizontal support member.

(a2) Hinge the plug boxes into position and secure them to the dado panel with bolts.

(b) In the rear passenger compartment (Ref. Fig. 401).

(b1) Loosely assemble the plug box strap assemblies to the rear face of the dado panel with bolts. Ensure that the straps are correctly handed. Position the dado panel to align with the plug boxes and engage its top lip with the outboard channel of the horizontal support member.

(b2) Tilt the bottom edge of the dado panel inboard and hinge the plug boxes to engage them under the strap assemblies. Carefully lower the dado panel ensuring that the plug boxes are correctly positioned and engaged under the straps.

(b3) Tighten the plug box strap assembly bolts.

(4) Secure the bottom edge of the dado panel to the seat rail flange with washers and bolts, ensuring that the joint plates are secured.

NOTE: At the dado end plate (LH side at frame 17)

secure the dado panel to the joint plate with bolts.

(5) Install the covers on the passenger entertainment plug boxes not in use by engaging the spring clips under the top edge of the plug box opening. Secure the bottom edge of the cover to the dado panel with a washer and screw.

(6) Install the passenger seat units and seat rail capping strips (Ref. 25-24-11, Removal/ Installation).

3. Dado End Plate - Forward Passenger Cabin (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque screwdriver 0-10 lbf in (0-113 mdaN) range	-

B. Remove

(1) Remove the bolt and washer securing the lower edge of the end plate to the seat rail flange.

(2) Remove the bolts securing the dado end plate to the joint plate.

(3) Lift the dado end plate to disengage the top lip from the horizontal support member channel; remove the end plate.

C. Install

NOTE: Torque tighten all bolts to between 8 and 10 lbf in (0.09 and 0.113 mdaN).

(1) Check that the seals are intact.

(2) Engage the top lip of the dado end plate in the out-board channel of the horizontal support member.

(3) Align the holes in the dado end plate with those in the joint plate; secure them with bolts.

(4) Secure the lower edge of the dado end plate to the seat rail flange with a washer and bolt.

4. Dado Sealing Panel (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque screwdriver 0-10 lbf in (0-113 mdaN) range	-

B. Removal

CAUTION: FIT THE SAFETY PIN TO THE INTERMEDIATE SERVICE DOOR SLIDE/RAFT INFLATION BOTTLE (REF.25-65-14, REMOVAL/INSTALLATION PRIOR TO PANEL REMOVAL.

(1) Remove the dado panel immediately forward of the sealing panel (Ref. para.2).

(2) Remove the two screws securing the socket support assembly to the sealing panel.

(3) Remove the screws and washers securing the bottom edge of the sealing panel to the seat rail flange.

(4) Undo the quick-release fasteners securing the vertical edges and the bottom edge of the sidewall panel which is located above the sealing panel (Ref. 25-22-11, Removal/Installation).

(5) Ease the bottom of the sidewall panel inboard, then, tilting the sealing panel inboard and down, disengage its top portion from behind the sidewall panel. Remove the sealing panel.

C. Install

CAUTION: ENSURE THAT THE SAFETY PIN IS FITTED TO THE INTERMEDIATE SERVICE DOOR SLIDE/RAFT INFLATION BOTTLE.

NOTE: Torque tighten all screws to between 8 and 10 lbf in (0.09 and 0.113 mdaN).

(1) Check that the seal is intact.

(2) Check that the quick-release fasteners, along the vertical edges and the bottom edge of the sidewall panel located above the sealing panel, have been released.

(3) Ease the bottom of the sidewall panel inboard, tilt the sealing panel and pass its top portion under and behind the sidewall panel.

(4) Align the holes in the sealing panel with the holes in the socket support assembly; secure the assembly to the sealing panel with two screws.

(5) Secure the bottom edge of the sealing panel to the seat rail flange with washers and screws.

(6) Tighten the sidewall quick-release fasteners (Ref. 25-22-11, Removal/Installation).

(7) Refit the dado panel immediately forward of the sealing panel (Ref. para.2).

(8) Fit the inflation bottle cover, and remove and stow the bottle safety pin (Ref.25-65-14, Removal/Installation).

5. Dado Panel and End Plate - Intermediate Coat Stowage (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque screwdriver 0-10 lbf in (0-113 mdaN) range	-

B. Remove

(1) Remove the entertainment system cover, unbolt the plug box from the dado panel, and remove the screws and washers securing the panel to the seat rail flange.

(2) Remove the bolts and washers securing the dado end plate to the closing angle. Lift the dado panel to disengage its top lip from the horizontal support member channel and remove the panel complete with

Printed in England

end plate.

(3) Remove the bolts securing the end plate to the dado panel; remove the plate from the panel.

C. Install

NOTE: Torque tighten all bolts to between 8 and 10 lbf in (0.09 to 0.113 mdaN).

(1) Check that the seals are intact.

(2) Fit the end plate to the dado panel and secure it with bolts.

(3) Install the dado panel and end plate assembly as detailed in para 2C. operations (3),(4) and (5).

(4) Secure the dado end plate to the closing angle with washers and bolts.

(5) Install the cover on the passenger entertainment plug box as detailed in para 2C operation (6).

Printed in England

R SYSTEMS PANELS - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

OBSERVE THE OXYGEN SAFETY PRECAUTIONS DETAILED IN 35-00-00, SERVICING.

CAUTION: BEFORE OPENING ANY AIR EXTRACTION DUCTING, DISCONNECT ALL ELECTRICAL POWER. THIS IS TO SAFEGUARD ELECTRONIC EQUIPMENT WHILST THE COOLING SYSTEM IS INOPERATIVE.

1. General

The systems panels, situated above the sidewall panels and behind the overhead stowage bins, carry the fresh air distribution and air extraction ducts, oxygen and water pipes, cabin lighting units, stowage bin support brackets, Passenger Service Units (PSU's) and associated fittings. Each panel is generally four frame bays in length except at the ends of the panel run where their length varies.

To remove an individual panel it is necessary to remove certain items of equipment and to disconnect systems and services at each end of the panel. The panel can then be removed with a number of components left in-situ on the panel. As all the systems panels are similar, the removal/ installation of one panel only is described.

2. Systems Panel Removal

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Bostik 2402 (Ref. 20-30-00, No. 328)	-
RTV 731 (Ref. 20-30-00, No.364)	-
Loctite grade C (Ref. 20-30-00, No.111)	-
Never-Seez, CM145 grease (Ref. 20-30-00, No.62)	-

DESCRIPTION	PART NO.
General purpose cleaning solvent BACM 302 (Ref.20-30-00, No.473)	-

B. Prepare

(1) Drain the potable water system (Ref. 12-36-00).

(2) Ensure that the oxygen therapeutic supply valve control on the passenger system control panel is in the "off" position.

(3) Switch off the air extraction system (Ref. 21-21-00) and display the appropriate warning placards.

(4) Trip the following circuit breakers and fit safety clips:

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
EMER PASS OXY IND	1-213	H1231	C11
EMER PASS OXY CONT	1-213	H1232	C10

C. Remove Sidewall Panels, Ceiling Panels and Overhead Stowage Bins.

(1) Remove the sidewall panels adjacent the systems panel(s) to be removed (Ref. 25-22-12, Removal/ Installation).

(2) Remove the adjoining ceiling panels (Ref. 25-22-12, Removal/Installation).

(3) Remove the adjoining overhead stowage bins (Ref. 25-21-22, Removal/Installation).

(4) Remove the air vane fairings (Ref. 25-22-21, Removal/Installation).

(5) Remove the PSU's (Ref. 25-21-21, Removal/Installation).

(6) Remove the speaker/sign panels (Ref. 25-21-23, Removal/Installation).

(7) Remove the infill panels (Ref. 25-21-24, Removal/Installation).

D. Remove Systems Panel (Ref. Fig. 401)

(1) Remove electrical components:

(a) Remove the PSU and speaker/sign unit electrical receptacles from the support brackets on the rear face of the shear panels (Ref. Detail A).

(b) Remove the P-clips securing the electrical loom to the rear face of the shear panels. Support the loom at intervals to prevent sagging.

(c) When applicable, remove the emergency lighting battery pack (Ref. 33-51-00, Removal/Installation) situated between overhead stowage bins at station 28 or 50, on the left-hand side of the aircraft only (Ref. Detail B).

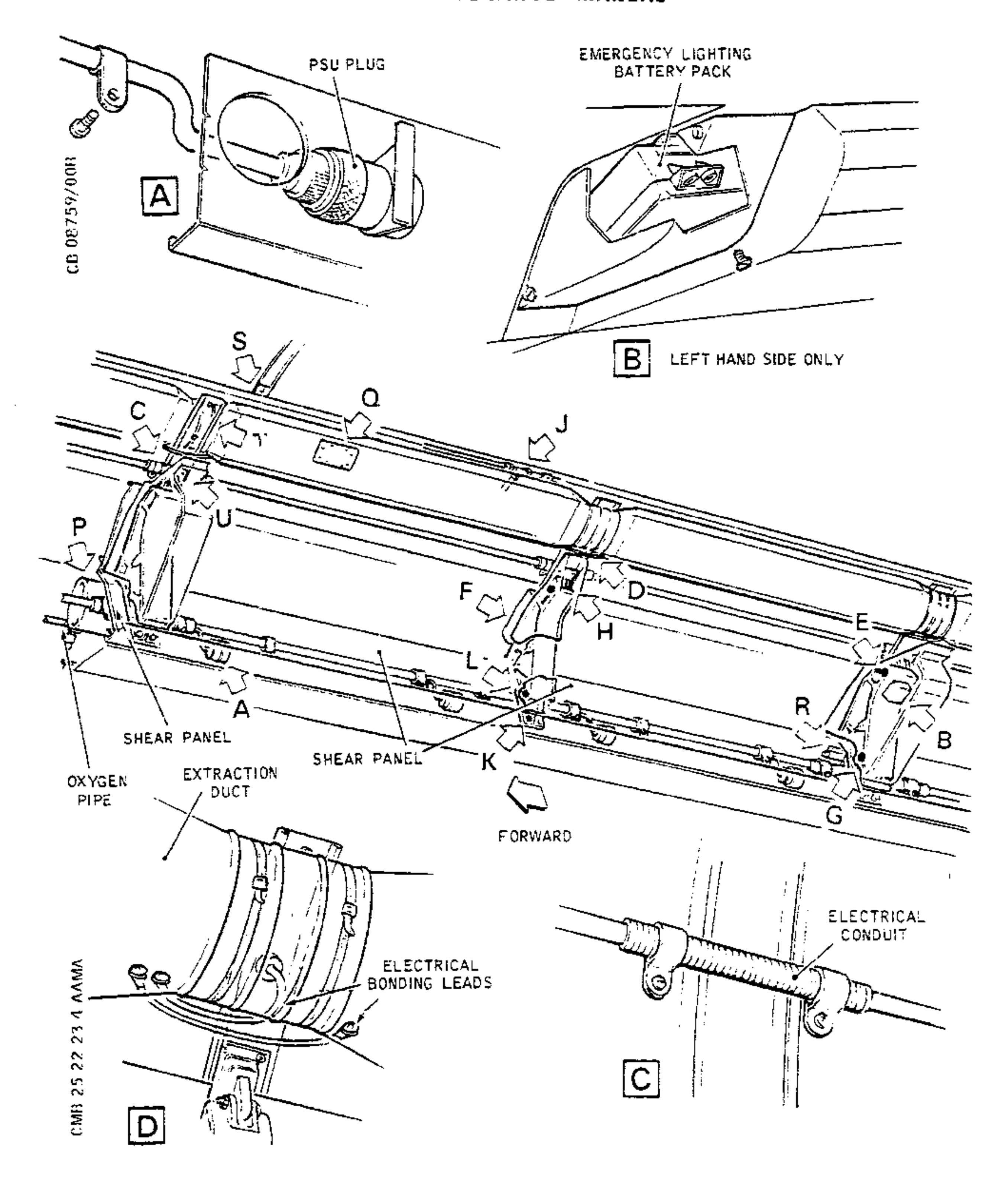
(d) At each end of the systems panel, at the top, remove the P-clips securing the electrical loom conduit and slide the conduit along the loom to expose the in-line splices. Cut the wires close to the splices and identify the wires for re-splicing on installation. (Ref. Detail C).

(e) Disconnect the electrical bonding leads at the extraction duct joints at each end of the systems panel (Ref. Detail D).

(2) Remove fairings, shear panels and support brackets:

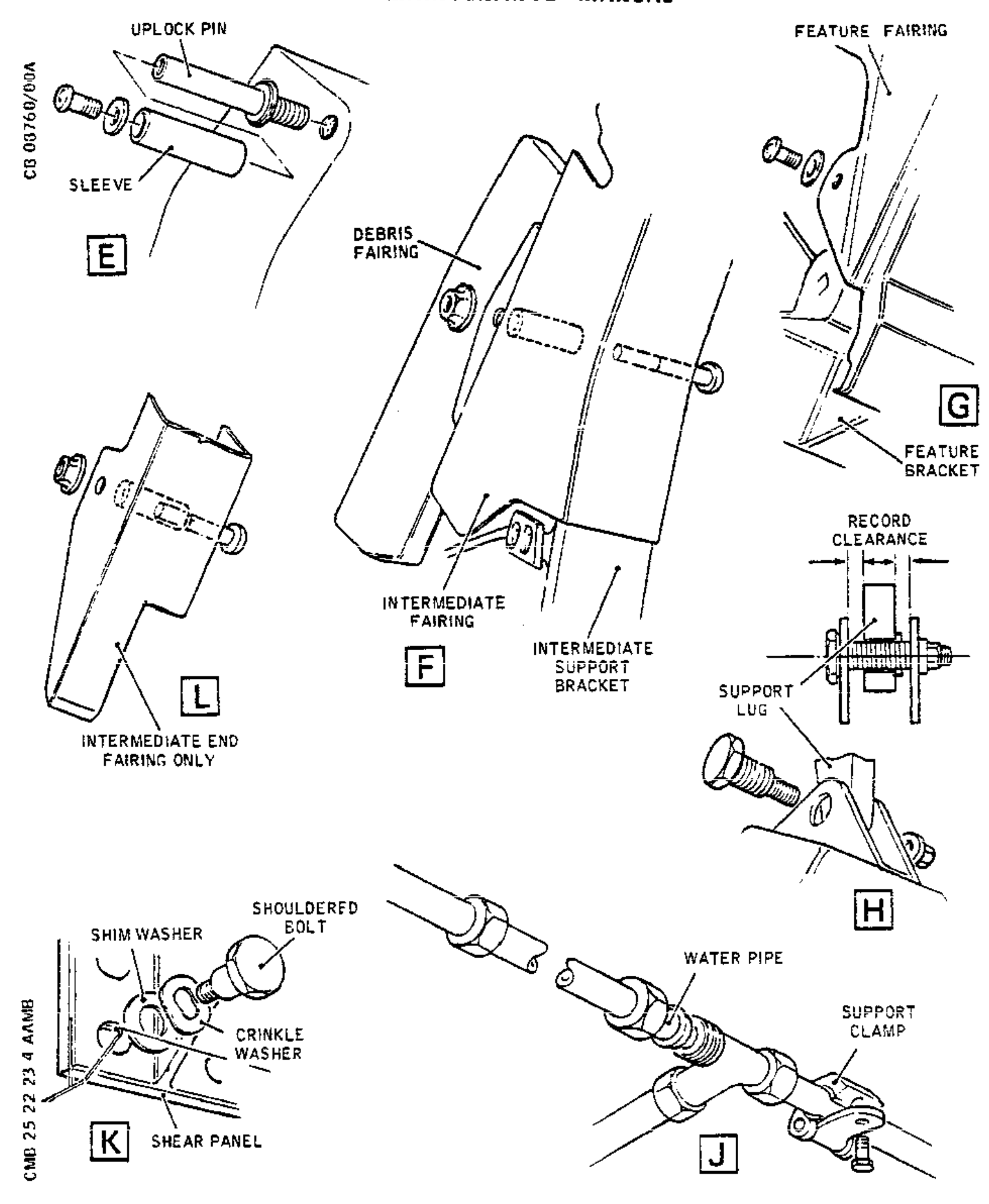
NOTE: To facilitate removal and installation, an assembly of two shear panels and a feature bracket sub-assembly are left joined together. These constitute the four frame bay length of the systems panel.

(a) Remove the screw, washer and sleeve from the stowage bin uplock pin each side of the feature fairing. Unscrew and remove the uplock pin

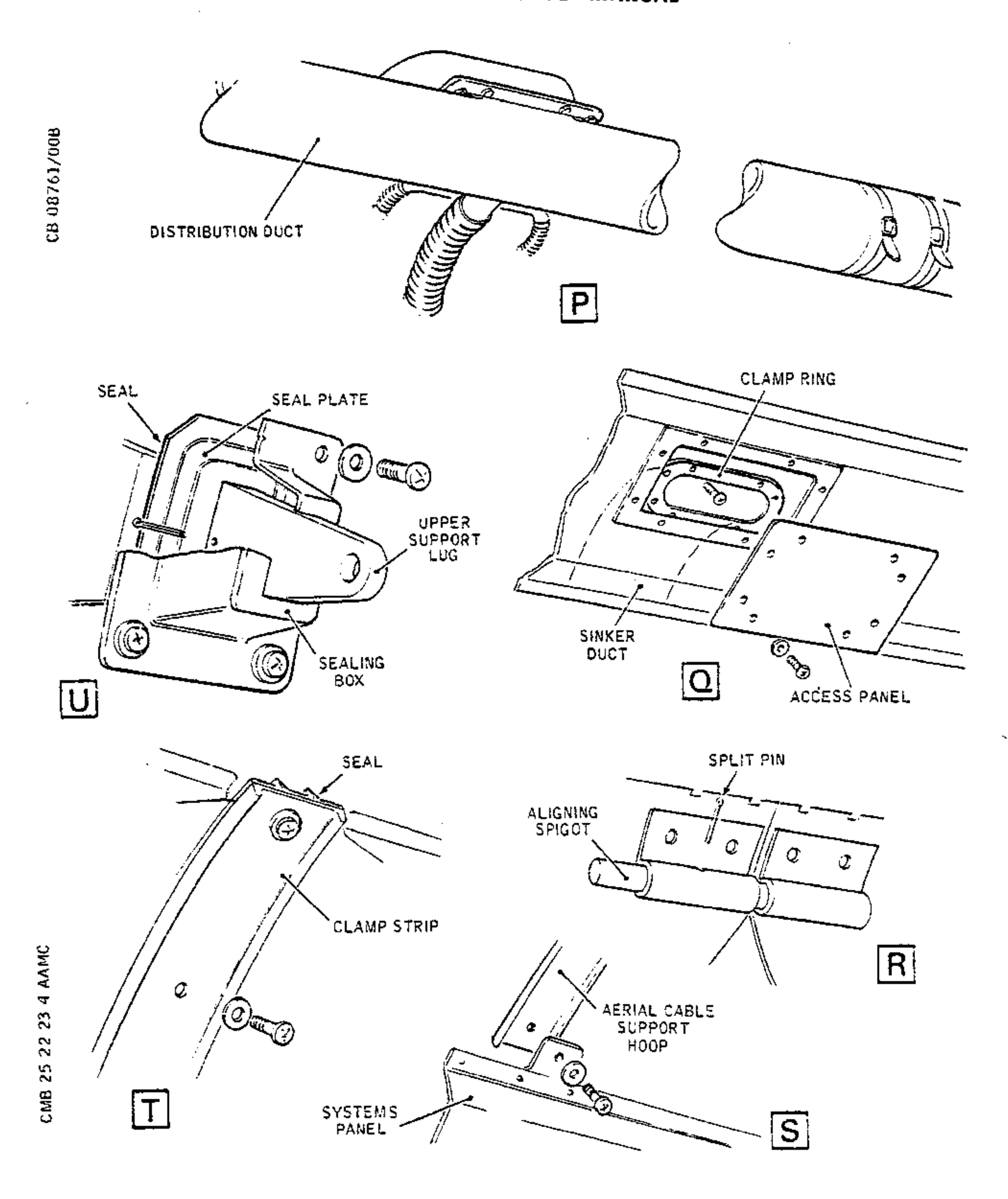


R

Systems Panel (Sheet 1 of 3)
Figure 401



R Systems Panel (Sheet 2 of 3)
Figure 401



R

Systems Panel (Sheet 3 of 3)
Figure 401

(Ref. Detail E).

(b) Remove the screws and washers securing the feature fairing to the feature bracket sub-assembly; remove the fairing (Ref. Detail G).

(c) Remove the screws, washers and shouldered spacers securing the intermediate fairings and debris fairings to the intermediate support brackets; remove the bracket fairings and debris fairings (Ref. Detail F).

(d) Remove the captive washer nuts and shouldered bolts securing the feature bracket sub-assembly to the support lugs (Ref. Detail H).

NOTE: Measure and record the clearance between each lug of the feature bracket and the support lug to obtain correct clearance for the shear panels on installation.

(e) Support the shear panels/feature bracket assembly. Remove the shouldered bolts, crinkled washers and shim washers securing the shear panels assembly between the two intermediate support brackets; remove the shear panels/feature bracket assembly (Ref. Detail K).

(f) Remove the intermediate support brackets: repeat the operation as detailed for the feature brackets, ref. sub para. (d) and its Note above.

(3) Remove the water pipe (RH side only):

NOTE: Water pipe joints do not necessarily coincide with systems panel joints. Therefore, it may be necessary to remove additional sections of the outer ceiling panel.

(a) Disconnect the water pipe union nuts at T-sections or on straight runs of the pipe as required (Ref. Detail J).

(b) Disconnect electrical bonding leads where fitted.

(c) Release the clamp bolts and remove the water

pipe from the supporting clamps. Fit blank covers to the pipes (Ref. Detail J).

R R R (4) Disconnect and remove the oxygen pipe in accordance with the procedure given in 35-00-00, Removal/Installation.

(5) Remove the fresh air distribution duct:

(a) Remove the cable ties securing the distribution bar flexible connecting pipes to the distribution duct stubs (Ref. Detail P).

(b) Remove the distribution duct (Ref. 21-24-13, Removal/Installation).

(6) Disconnect the air extraction duct:

(a) Remove the cable ties securing the flexible connector sleeve to the duct ends and remove the sleeve. Fit blank covers to the duct ends (Ref. Detail D).

(b) Disconnect the electrical bonding lead connecting the ducts and the bonding lead to the aircraft structure (Ref. Detail D).

(c) For the ducts which are connected to a sinker duct; remove the screws and washers securing the access panel on the face of the duct. Remove the access panel and through the aperture, remove the screws and washers securing the sinker duct flange. Remove the clamping ring and using a thin bladed tool carefully free the flange joint (Ref. Detail Q).

(d) Feed the flexible flange out through the extraction duct aperture. Fit blank covers to avoid ingestion of debris.

(7) Remove upper and lower support lug sealing boxes:

(a) Remove the screws and washers securing the sealing box over each lug; remove the sealing box.

(b) At the upper lug position only; extract the split pin and remove the seal plate complete with seal (Ref. Detail U).

(8) Remove the systems panel:

(a) Remove the split pin and withdraw the spigot aligning the triangular support members at the joint between the panels (Ref. Detail R).

(b) Remove the screws and washers and release the aerial cable intermediate support hoops from the lugs at the top of the systems panel. Support the aerial cable support hoops as required (Ref. Detail S).

(c) Remove the screws and washers securing the vertical clamp strips and seals at each end of the systems panel. Remove the clamp strips and seals (Ref. Detail T).

(d) Remove the systems panel complete with lights, shades, air distribution bar etc.

(9) Fit blank covers to ducts not previously protected.

(10) Clean old adhesive from systems panel edges and duct aperture surrounds using BACM 302 solvent.

E. Install Systems Panel (Ref. Fig. 401).

(1) Comply with the electrical and oxygen safety precautions.

(2) Remove the blank covers from the air extraction sinker ducts and fresh air riser ducts before positioning the systems panel.

(3) Prepare new tape seals for each end of the systems panel by using the old seals as templates.

NOTE: The seals must be a close fit around the stowage bin intermediate support lugs.

(4) Position the systems panel and fit the tape seals across the joint between adjoining panels using Bostik 2402 adhesive (Ref. 20-25-15). Leave a bellows fold in the tape seal between systems panels to allow for expansion and contraction (Ref. Detail T).

(5) Fit the vertical clamp strips and secure them with washers and screws (Ref. Detail T).

(6) Secure the aerial cable intermediate support hoops

to the lugs at the top of the systems panel using washers and screws (Ref. Detail S).

(7) Insert the aligning spigots for the triangular support members at the join between each panel; secure the spigots with a split pin (Ref. Detail R).

(8) Fit the upper and lower lug sealing boxes (Ref. Detail U)

(a) At the upper lug only; fit the sealing plate complete with seal over the lug and secure it to the lug with a split pin.

(b) Fit the upper and lower sealing boxes over the lugs and secure them to the systems panel with washers and screws.

(9) Connect the air extraction ducts (Ref. Details D and Q)

(a) Remove the blank covers from the duct ends. Fit the connector sleeve over the ends of the adjoining ducts and secure the sleeve to the duct each side of the join with a cable tie.

(b) At the access aperture in the duct, pull the flexible flange of the air extraction sinker duct through the aperture in the systems panel. Align the flange screw holes and bond the flange to the aperture surround using RTV 731 (Ref. 20-25-12).

(c) Secure the flange to the systems panel with a clamping ring, washers and screws.

(d) Re-fit the access panel and secure it with washers and screws.

(10) Gently pull the flexible flange of the fresh air riser duct through the aperture in the systems panel. Align the bolt holes and bond the flange to the panel using RTV 731 (Ref. 20-25-12).

(11) Install the fresh air distribution duct (Ref. 21-24-13, Removal/Installation).

(12) Connect the flexible connecting pipes from the fresh air distribution bar to the stubs on the distribution duct; secure them with cable ties (Ref. Detail P).

R (13) Install, test and, if necessary, purge the oxygen
R pipe in accordance with the instructions given in
R 35-00-00, Removal/Installation.

(14) Install the water pipe (RH side only), (Ref. Detail J):

(a) Remove the blank covers from the pipes and position the pipes in the supporting clamps without tightening the clamp bolts.

(b) Connect the union nuts and torque-tighten to between 160 and 180 lbf in (1.81 and 2.03 mdaN).

(c) Tighten the clamp bolts and reconnect the electrical bonding lead where fitted.

(15) Install the shear panel, bin support brackets and fairings:

(a) Position the intermediate support bracket and insert the upper and lower shouldered bolt. Screw the bolt into the threaded insert of the support lug to obtain the dimensions recorded during removal. Fit a captive washer nut to each bolt and torque tighten the nut to between 25 and 30 lbf in (0.28 and 0.34 mdaN), (Ref. Detail H).

(b) Position the shear panels/feature bracket assembly between the intermediate support brackets. Secure the feature bracket to the upper and lower support lugs using shouldered bolts, adjusting each bolt in its thread to obtain the dimensions recorded during removal. Fit a captive washer nut to each bolt and torque-tighten the nut to between 25 and 30 lbf in (0.28 and 0.34 mdaN) (Ref. Detail H).

(c) Secure the shear panels to the intermediate bracket using a shouldered bolt with a crinkle washer and a shim washer under the head of the bolt. Torque-tighten each bolt to between 15 and 20 lbf in (0.17 and 0.23 mdaN) (Ref. Detail K).

NOTE: The second bolt hole up in the shear panel and bracket is not used.

(d) Fit the intermediate fairings and debris fairing to the intermediate support brackets. Secure the fairings with shouldered spacers, washers and screws (Ref. Detail F).

(e) Fit the feature fairing to the feature bracket sub-assembly and secure it with washers and screws (Ref. Detail G).

(f) Fit a bin uplock pin on each side of the fairing and torque-tighten the pin to 25 lbf in (0.28 mdaN). Assemble a sleeve to the pin using Never Seez grease, removing excess grease after assembly. Secure the sleeve to the pin with a washer and a screw using Loctite grade C. Hand tighten the screw only (Ref. Detail E).

(16) Install the electrical components:

(a) Connect the electrical bonding leads at the air extraction duct joints at each end of the systems panel (Ref. Detail D).

(b) At the top of the systems panel; fit the conduit over the electrical loom and re-connect the wires with in-line splices in accordance with Wiring Diagram Manual 20-42-14 and the relevant wiring diagram. Cover the splices at the join between the systems panels with the conduit and secure the conduit with P-clips (Ref. Detail C).

(c) Secure the PSU electrical loom to the rear face of the shear panels using P-clips. Fit and secure the PSU and speaker/sign unit receptacles to the brackets on the rear face of the shear panels (Ref. Detail A).

(d) Where applicable, re-install the emergency lighting battery pack situated between the overhead stowage bins at station 28 or 50, on the left-hand side of the passenger compartment only in accordance with 33-51-00, Removal/Installation (Ref. Detail B).

F. Conclusion

(1) Replenish the water system in accordance with 38-11-00, Servicing. Test the system and check the pipe unions for leaks.

(2) Install the PSU's (Ref. 25-21-21, Removal/Installation) and operationally test the panel connections.

(3) Install the speaker/sign panels (Ref. 25-21-23, Removal/Installation and carry out an operational test.

R (4) Operate the ground conditioned air supply and check all joints for air leaks.

R (5) Install the infill panels (Ref. 25-21-24, Removal/Installation).

R (6) Install the air vane fairings (Ref. 25-22-21, Removal/Installation).

R (7) Install the ceiling panels (Ref. 25-22-12, Removal/Installation).

R (8) Install the overhead stowage bins (Ref. 25-21-22, Removal/Installation).

R (9) Install the sidewall panels (Ref. 25-22-11, Removal/Installation).

PARTITIONS - DESCRIPTION AND OPERATION

1. General (Ref. Fig. 001)

Partitions, together with electronic rack bulkheads and cabin service stowages, are part of the interior furnishing and form forward, centre and rear vestibules. The centre vestibule divides the passenger cabin into two main compartments.

The partitions enclose galleys, toilets, coat stowages and cabin amenity services.

In the vicinity of each passenger and service door there is a stewards seat.

2. Removable Partitions

Each partition consists of a sandwich panel with a honeycomb core. Spigots, attachment angles and foot fittings enable the partitions to be secured to the ceiling and floor structures.

Each partition is designed for a particular frame station and has the necessary attachments incorporated for the fitment of furnishing appropriate to the compartment that it encloses.

3. Operation

To facilitate a change in seating configuration certain partitions at the front of the forward passenger compartment can be removed or installed. These partitions form the cabin bulkheads of No.3 and No.4 Galleys and the rear toilet and coat stowages (Ref. Fig. 001).

R B 4. Curtains - Passenger Forward and Rear Cabins (Fig. 002)

R B A. Mod 25C506 introduces the Landor interior.
R B Curtains are fitted in the following locations:-

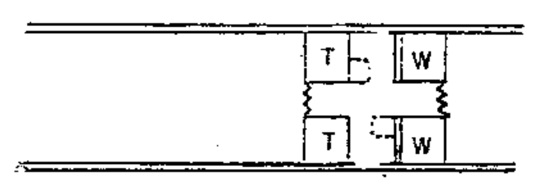
R B (1) Between the MBB wardrobes in the forward and
R B rear cabins.

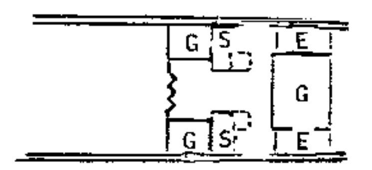
R B (2) Between toilets 2/3.

R B (3) Between galley 5/6.

R B B. The assembly drawing for all curtains is 4-54885.
R B Curtain material is LA115D wool fabric. The pattern
R B drawing for toilet 2/3 is 3BA21416, and for galley 5/6 is
R B 3BA21417.

E G T G W
E G C G W





100 SEAT LAYOUT

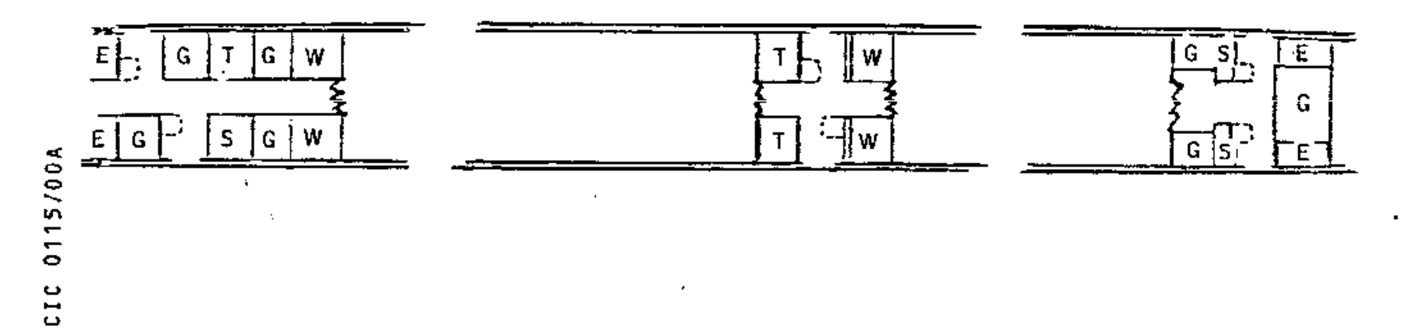
CIC 0114/00A

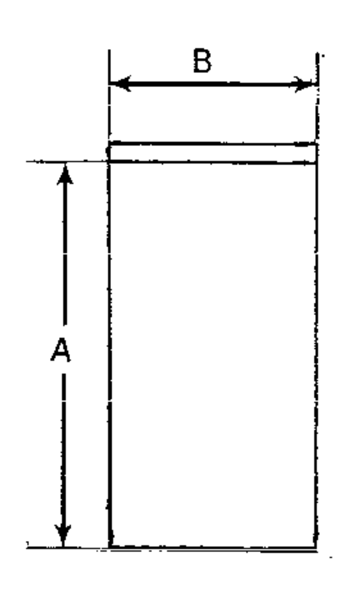
C	COAT STOWAGE
E	ELECTRONIC RACKS
G	GALLEY
S	CABIN SERVICES
T	TOILET

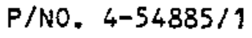
Forward, Centre and Rear
Vestibules-Partitions
Figure 001

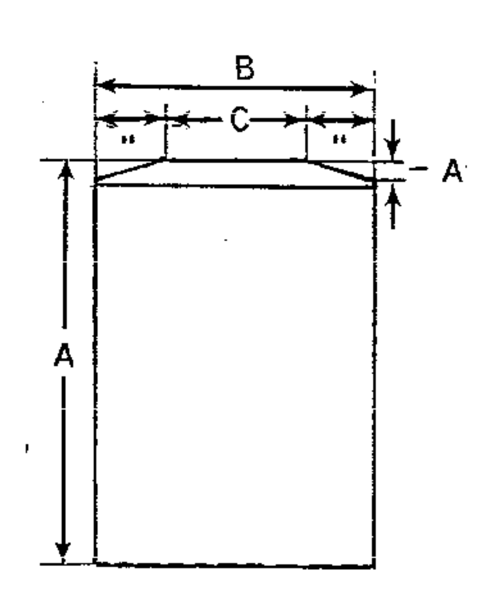
CMB 25 23 00 0 AAND

B






P/NO. 4-54885/1



P/N 4-54885/2

CURTAINS								
PART NO.	PATTERN NO.	MATL.	DIM. A	DIM. B OPEN	DIM. B PLEATED	DIM. C DEV.	DIM. C FINISH	DIM. D
4-54885/1	3BA21416	LA115D	72 in.	36 in.	24 in			
4-54885/2	3BA21417	LA115D	72 in.	46 in.	29 in	21 in.	12 in	4 in.

Curtains - Forward and Rear
Passenger Cabins
Figure 002

AMENITY STOWAGE - INSPECTION/CHECK

1. General

There are three amenity stowages in the main passenger compartment: one is located in the forward Vestibule, and two are located, one each side of the aircraft in the intermediate Vestibule. An inspection/check ensures that the amenity stowage furnishings and equipment are in a satisfactory condition, and that the attachment fittings and stowage area have not been affected by contaminating fluids and adverse loading.

2. Amenity Stowage

A. Inspection

(1) Visually inspect all parts of the stowage for cleanliness, damage and condition of protective treatments.

(2) Examine the floor covering in and around the amenity stowage for cleanliness, damage and contamination.

B. Check

(1) Check all parts for security, including electrical bonding leads where fitted.

(2) Check the satisfactory operation of each cabinet container door, ensuring that the latches secure the doors in the closed position.

(3) Ensure that all equipment within the amenity stowage is secure, and that the securing media can be opened and closed satisfactorily.

(4) Ensure that all fasteners securing partitions, shelves, panels and posts are secure.

3. Amenity Stowage Attachments

A. General

(1) Visually inspect all parts listed in Table 601 for damage, corrosion and security. Also inspect all attachment holes and, where possible, surrounding areas for damage.

AMENITY STOWAGE		ATTACH FITTINGS	ACCESS
Forward	(1)	Forward bulkhead inboard post to floor (1 bolt)	Remove inboard panel.
	(2)	Rear bulkhead floor fittings (2 off)	Open the oxygen compartment door and remove oxygen bottle.
	(3)	Rear inboard roof spigot	Open the top rearmost amenity stowage door.
	(4)	Forward inboard roof spigot	Remove inboard panel.
	(5)	Rear bulkhead roof spigot	Open the top left-hand amenity stowage door and remove top access panel.
Left-Hand Inter-mediate	(1)	Amenity stowage to inboard seat post (7 bolts)	Open amenity stowage doors.
	(2)	Amenity stowage to outboard seat post (8 bolts)	Open amenity stowage doors. NOTE: To check the top bolt, remove access panel in the top panel of the stowage. Bottom bolt is located in the passenger footwell.
Right-Hand Inter-mediate	(1)	Forward bulkhead foot fitting (1 off)	Remove bottom inboard panel.
	(2)	Amenity stowage to stub bulkhead post (2 bolts)	Peel back the carpet, lining the footwell in the aft bulkhead, and remove access panel.

AMENITY STOWAGE		ATTACH FITTINGS	ACCESS
	(3)	Amenity stowage to the stub bulkhead post (4 bolts)	Open amenity stowage door.
	(4)	Forward roof spigot	Remove the top panel inside the top compartment of the amenity stowage.

Amenity Stowage Attach Fittings - Inspection
Table 601

R **ON A/C 006-007,

FURNISHED BULKHEAD - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The furnished bulkhead is located at the front of the forward vestibule on the right-hand side. The bulkhead comprises an aluminium-alloy flanged diaphragm, strengthened by intercostals, with upper and lower leg assemblies.

When a stewards seat is attached to the bulkhead, a back rest and a head rest are fitted to the structure above the seat; if the seat is not fitted, a furnishing panel is attached to the structure, instead of the back and head rests, and encloses the seat attachment points.

2. Furnished Bulkhead (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque spanner 0-80 lbf in (0-0.904 mdaN)	-

B. Remove

(1) Switch off and disconnect electrical ground power from the aircraft (Ref.24-41-00). Display a suitable warning notice.

(2) Remove the four torq-set screws and washer securing the furnishing panel, then lift the panel to disengage the clips situated behind the bottom edge of the panel; remove the furnishing panel.

(3) Release the captive attachment fasteners and remove the side fairing and lower trim panel.

(4) Release the quick-release fasteners and hinge open the upper trim panel.

(5) Release the fasteners and hinge open circuit breaker panel 25-216, located behind the upper trim panel to gain access to the top horizontal member securing bolts.

(6) Remove the two bolts and washers securing the surrounding structure to the upper horizontal member of the bulkhead structure (Detail A).

(7) Close the circuit breaker panel and the upper trim panel.

(8) Loosen and withdraw the three captive bolts securing the outboard contour of the bulkhead assembly. Access to the centre bolt is obtained by removing an access panel inside the stub bulkhead stowage and access to the bottom bolt is obtained by removing an access panel on the stub bulkhead outboard of the slide/raft girt arm (Detail B).

(9) Support the assembly and remove the three bolts and washers from its inboard vertical edge (Detail C).

(10) Ease the bulkhead assembly rearward to free it from the surrounding rack structure. Remove the bulkhead assembly.

C. Install

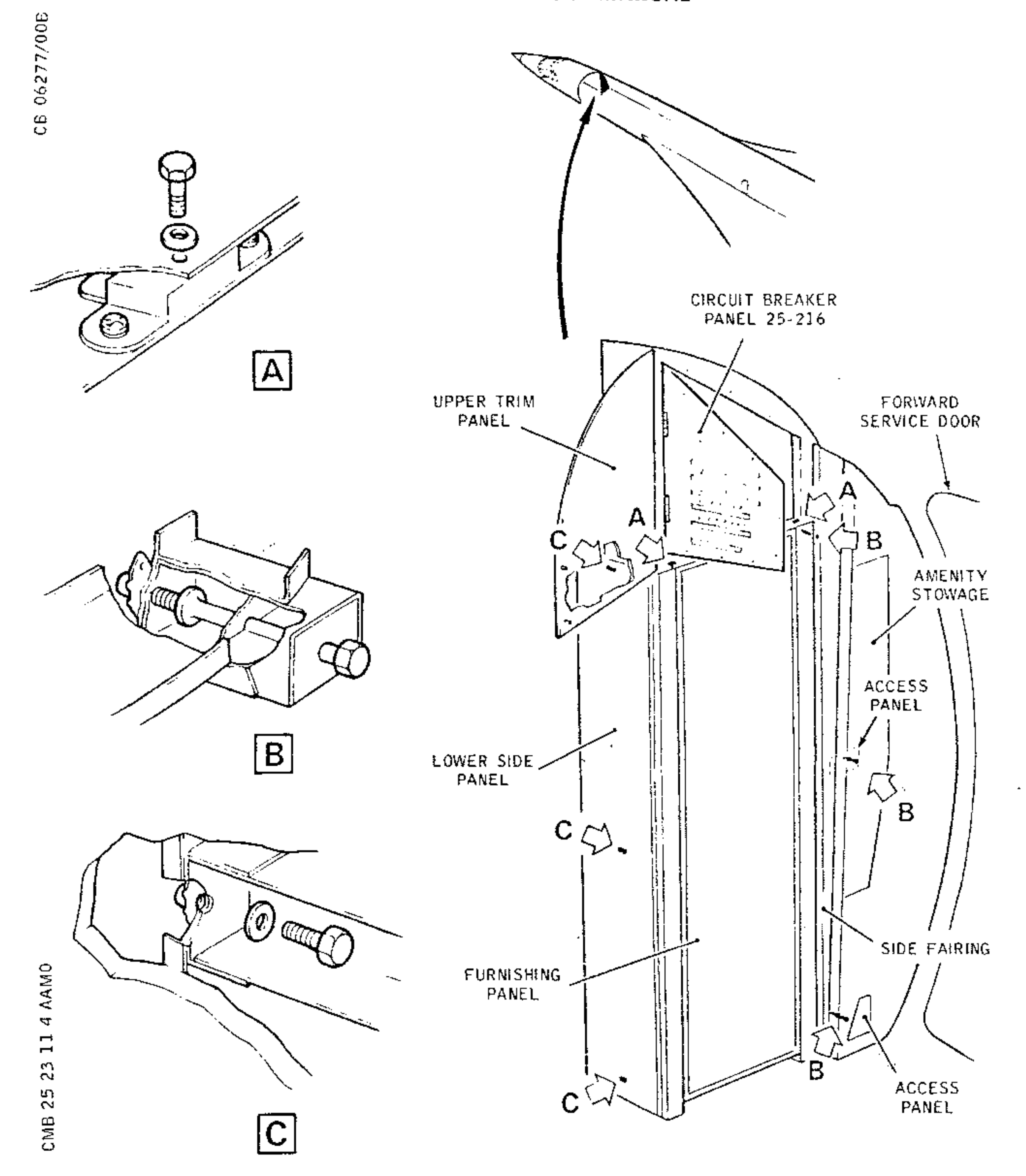
(1) Observe the electrical safety precautions and ensure that the ground power is switched off and disconnected from the aircraft (Ref.24-41-00).!

(2) Position the bulkhead assembly with its forward face in contact with the surrounding rack structure, forward of the right-hand vestibule.

(3) Open the upper trim panel and circuit breaker panel 25-216 located behind the upper trim panel.

(4) Fit the three washers and bolts in the inboard vertical edge, the three captive bolts in the outboard contoured edge, and the two washers and bolts in the upper horizontal structure to their respective anchor nuts. Torque tighten the vertical bolts (Ref. details B and C) to between 70 and 80 lbf in (0.791 and 0.904 mdaN) and the two bolts in the horizontal members (Ref. detail A) to between 40 and 45 lbf in (0.452 and 0.509 mdaN).

(5) Close the circuit breaker panel and secure the quick



Furnished Bulkhead
Figure 401

release fasteners; close the upper trim panel and secure the quick release fasteners.

(6) Fit the side fairing and upper and lower side trim panels, and secure them with the captive attachment fasteners.

(7) Fit the furnishing panel by engaging the clips at the bottom of the panel with the brackets on the bulkhead structure and securing the panel to the structure with the four washers and torq-set screws.

(8) Make available electrical ground power (Ref.24-41-00); remove the warning notice.

FORWARD PASSENGER COMPARTMENT AFT COAT SPACE BULKHEAD REMOVAL/INSTALLATION

1. General

A passenger coat space is located at the aft end of the forward passenger cabin on the left hand side immediately forward of toilet No. 2.

The coat space comprises a phenolic resin honeycomb bulkhead which is attached to the toilet bulkhead by a pelmet. The coat space houses two coat rails and is enclosed by a curtain.

2. Coat Space Bulkhead (Ref. Fig. 401).

A. Equipment and Materials

DESCRIPTION	PART NO.
UNF spanner	-

B. Remove Bulkhead

(1) Remove the curtain from the coat space pelmet.

(2) Remove the coat rails by driving out the spring pins securing the ends of the coat rails in the coat rail fittings. Unscrew the coat rail fittings from the fore and aft bulkheads.

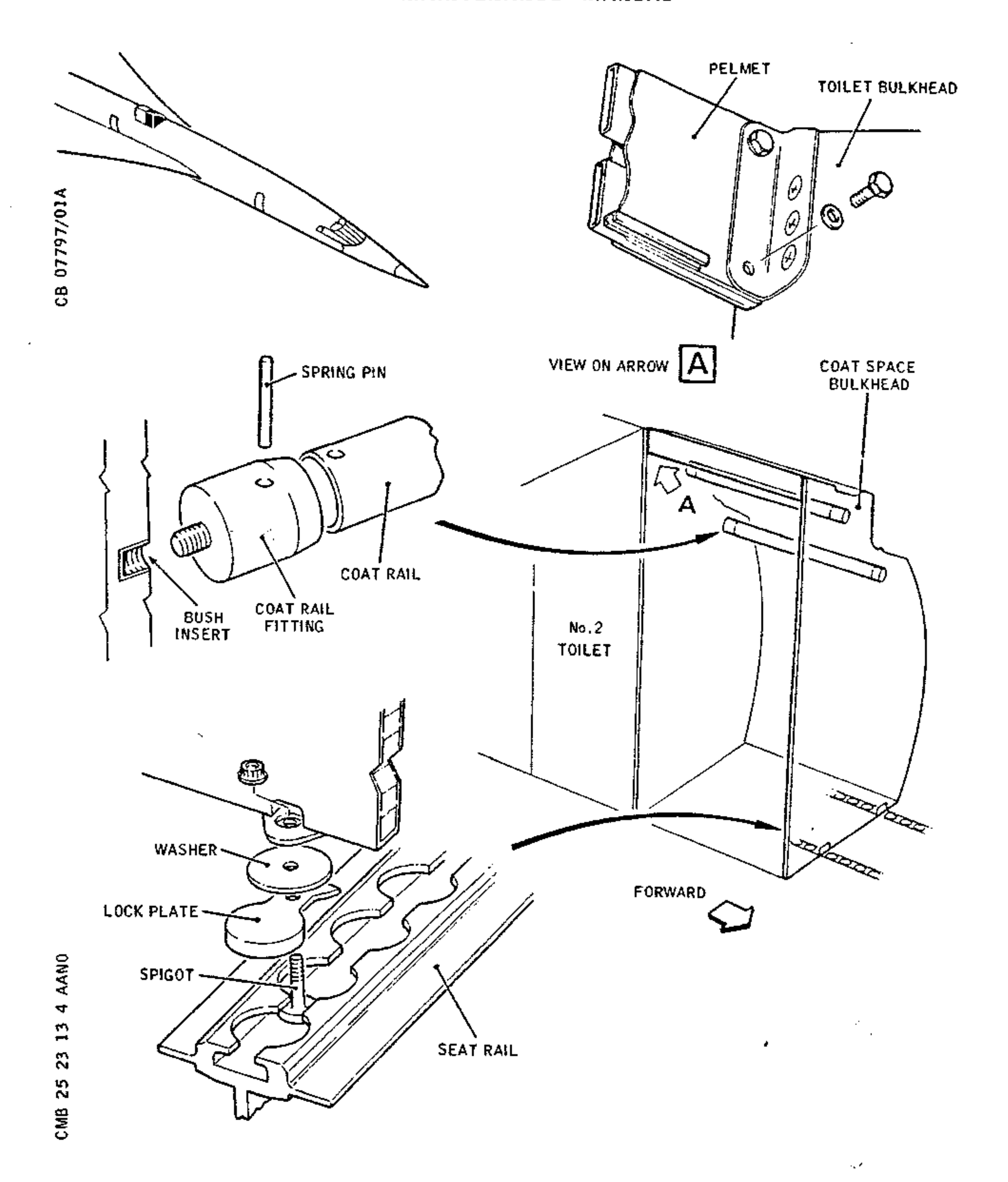
(3) Remove the pelmet by removing the two bolts and washers in the toilet bulkhead and the two bolts and washers in the back face of the pelmet at the coat space bulkhead end. Support the bulkhead.

(4) Remove the bulkhead by unscrewing the two nuts from the inner and outer coat rail spigot fitting, tilt the bulkhead slightly and lift it off the spigots. Recover the washers, lock-plates and spigots from the rails.

C. Install Bulkhead

(1) If the curtain rail on the pelmet needs replacing:

(a) Drill out the blind rivets securing the curtain



Coat Space Bulkhead - Installation
Figure 401

rail to the pelmet.

(b) Use the old curtain rail as a model and trim the new curtain rail to length; deburr the cut end.

(c) Use the pelmet as a template, mark the positions of the rivet holes on the curtain rail and drill 21 holes 2.4 mm dia.

(d) Attach the new curtain rail to the pelmet with BAS 7037-320BS blind rivets.

(2) Position the spigots, lock-plates and washers in the inner and outer seat rails.

(3) With the coat space bulkhead tilted slightly, locate it over the spigots. Fit the nuts, to the spigots, but do not tighten.

(4) Position the pelmet and secure it to the toilet bulkhead with two bolts and washers, and to the coat space bulkhead end with two bolts and washers into the back face of the pelmet.

(5) Place a coat rail fitting on each end of the two coat rails and screw the rail fittings into the bushes in the fore and aft bulkheads. Align the holes drilled in the fittings and rails and insert a spring pin. Wet assemble using JCV jointing compound (Ref. 20-22-14).

(6) Tighten the nuts on the spigots at the foot of the bulkhead.

D. Conclusion.

(1) Refit the curtain to the coat space pelmet.

RB CABIN SERVICES UNIT - REMOVAL/INSTALLATION

RB WARNING: OXYGEN SYSTEM: AN OXYGEN BOTTLE IS LOCATED IN THE CABIN SERVICES UNIT. MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE, ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. THEREFORE, TO AVOID THE RISK OF FIRE OR EXPLOSION, IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT, AND THE AREA IN THE VICINITY OF THE EQUIPMENT, CLEAN AND FREE FROM CONTAMINATION.

OBSERVE THE OXYGEN SAFETY PRECAUTIONS DETAILED IN 35-00-00, SERVICING.

OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

CAUTION: BEFORE RECONNECTING OXYGEN PIPES, REFER TO 20-23-11.

1. General

RB The Cabin Services Unit (CSU) is located aft of the forward
RB passenger door on the left hand side of the aircraft and has
RB working faces on the forward and aisle sides.

RB On the forward face of the CSU, there is a fresh air outlet
RB and a cupboard containing various emergency equipment,
RB consisting of two smoke hoods, an oxygen bottle, a passenger
RB restraint, a fire exinguisher, a megaphone and two sets of
RB fire gloves.

RB On the aisle face of the CSU there are four mealtray
RB containers, a cupboard for a crew oxygen bottle, a cupboard
RB for a survival pack and escape rope, and two cupboards for
RB miscellaneous stowage, demo equipment and a tape reproducer,
RB and a wardrobe containing two hidden compartments for a
RB radiation detector and for a razor static inverter.

RB The mealtray containers are each retained by a turncatch and a
RB pushcatch. The cupboard doors have two integral catches for
RB retention.

RB The structure of the CSU is formed of a number of
RB non-metallic honeycomb sandwich panels bonded with aluminium
RB extruded sections or bonded joints to form a rigid unit.
RB Four floor attachment points and two top attachment points
RB are provided.

RB 2. Removal

A. Equipment and Materials

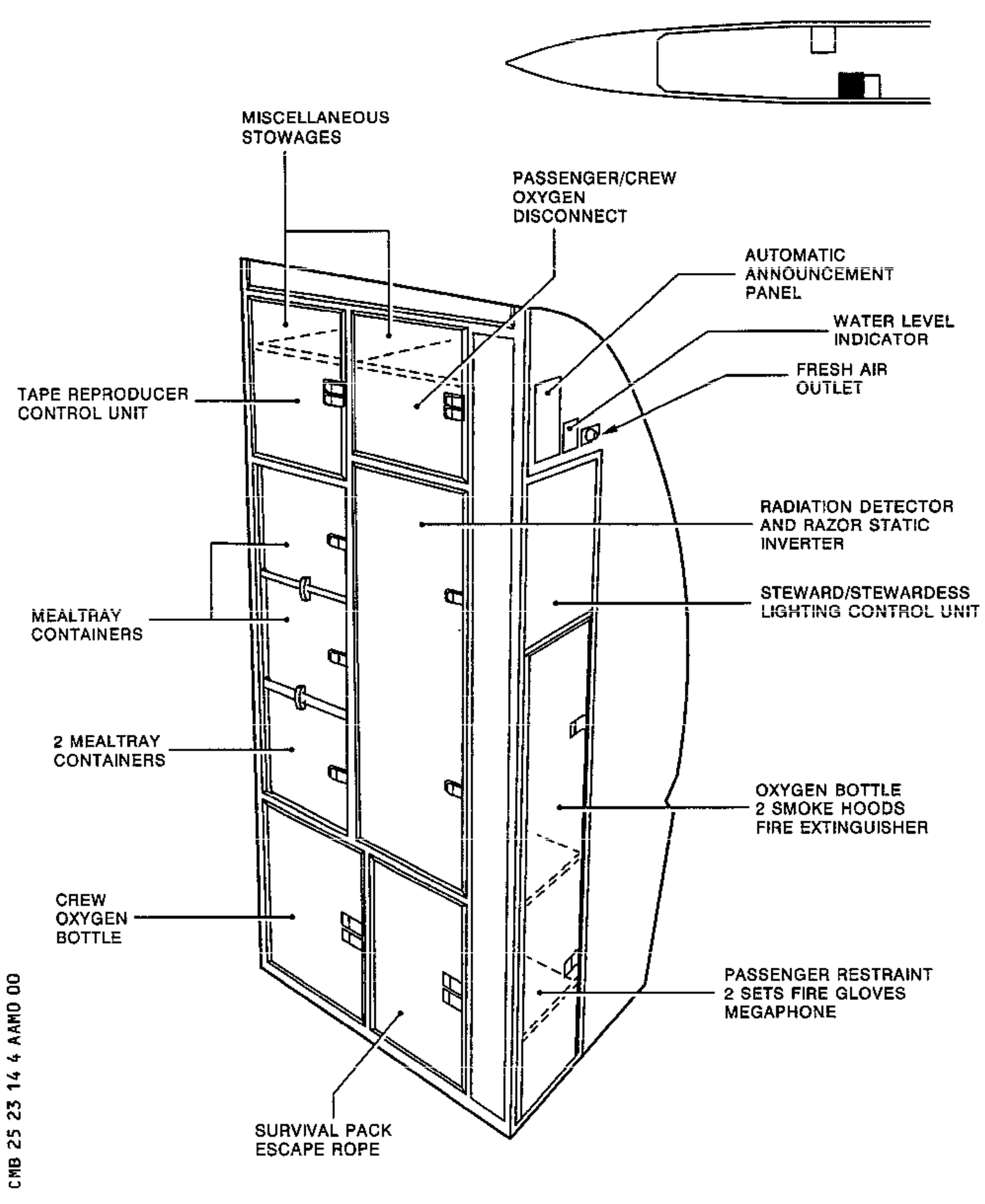
DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Sealant JC-5A (Ref. 20-30-00, No.382)	-
Cleaning solvent BACM 302 (Ref. 20-30-00, No.473)	-
Torque spanners 0-200 lbf in (0 to 2.260 mdaN) range	-

B. Prepare to Remove

RB NOTE: Depending on the dismantling required, the flight
RB crew oxygen supply cylinder and its associated
RB racking mounted in the lower compartment of the
RB CSU may not need to be removed to dismantle the CSU.

RB (1) Trip the appropriate circuit breakers and fit safety clips:

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
EMER PASS OXY IND	1-213	H1231	C11
EMER PASS OXY CONT	1-213	H1232	C10
NO.1 INPH SUP	1-213	R89	K19
PA SUP	1-213	R139	K20
FASTEN S/BELTS SUP	1-213	W191	L8
NO SMOKING SUP	1-213	W192	L9
CABIN EMER LTS BAT CHG & EXIT SIGN SUP	1-213	L831	Q22
TAPE REPRO DC SUP	1-213	R248	L19
TAPE REPRO AC SUP	2-213	R247	G21
NO.2 INPH SUP	3-213	R90	H2
FWD CABIN CEILING LTS SUP	14-215	L453	D10
AFT CABIN CEILING LTS SUP	14-215	L454	C10
RADIATION DETECT SUP	13-216	W401	A20
RH FWD PASS RDG LTS TRANS SUP	13-216	L884	C8
LH FWD PASS RDG LTS TRANS SUP	13-216	L885	C9
AFT CABIN WALL LTS SUP	14-216	L451	B9



RB
RB

CSU Stowage Equipment
Figure 401

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
FWD CABIN WALL LTS SUP	14-216	L452	C9
POTABLE WATER COMPR SUP	14-216	M752	B17
POTABLE WATER COMPR CONT	15-216	M751	B22
PASS CALL SUP	15-216	M78	A22
RAZOR OUTLET SUP	15-215	M211	G5
VESTIBULE & BOARDING	25-216	L692	C1

RB (2) Remove appropriate equipment from the stowage.

C. Remove Equipment as necessary (Ref. Fig. 401)

RB (1) Remove all doors required from the CSU by removing the
RB screws from the hinges.

(2) Remove the potable water compressor switch (M757) from
RB the forward lower compartment of the CSU (Ref. 38-41-00, Removal/Installation).

(3) Disconnect the electrical connectors (U2985, U2986 and U2295) from the side of the stewards' lighting control
RB unit (1-221) located on the forward face of the CSU. Access to the connectors is obtained through the
RB wardrobe compartment.

(4) Undo the quick release fasteners and lower the front panel of the stewards' lighting control unit (1-221). Remove the four bolts and washers securing the lighting control unit to the mounting angles. Remove the lighting control unit.

RB (5) Remove the razor static inverter (M212) gaining access
RB through the wardrobe compartment (Ref. 25-41-00, Removal/Installation).

(6) Disconnect the electrical connector (R246A) from the
RB tape reproducer control unit (R246), and the bonding
RB cable located in the upper rear stowage of the CSU.

(7) Remove the screws securing the tape reproducer control unit (R246) to the mounting angles on the top panel, and remove the control unit.

(8) Undo the knurled fasteners securing the tape reproducer (R245) in its rack, and remove the tape reproducer.

(9) Disconnect the galley supplies electrical connector
RB (U2208) located at the rear of the wardrobe.

RB (10) Remove the radiation detector, after removing the
RB bonding cable (Ref. 31-22-11, Removal/Installation).

(11) Remove the oxygen pressure switches (H1233 and H1234)
RB located in the top compartment of the CSU (Ref. 35-21-14, Removal/Installation). Remove the P-clips securing the electrical leads to the vertical panel.

(12) Observe the oxygen safety precautions (Ref. 35-00-00, Servicing) and uncouple the union nut and remove the oxygen pipe between the T-piece in the roof and the oxygen pressure switches (H1233 and H1234). Fit
RB pressure tight protective caps to the pipe ends.

(13) Disconnect the electrical bonding strips from the
RB radiation detector and tape reproducer if necessary.

RB (14) Loosen the clips and remove the small diameter
RB flexible hose from between the fresh air outlet and the partition fitting. Access is through the tape reproducer panel opening.

RB D. Remove Attachment Bolts (Ceiling, Floor or Split Line) (Ref. Fig. 402)

RB (1) After removing doors, panels and equipment from the
RB CSU the unit can be split into two, to facilitate its
RB full or partial removal from the aircraft.

RB NOTE: It is not necessary to remove the floor mounted
RB oxygen bottle.

RB For detailed breakdown of the CSU structure
RB refer to Component Maintenance Manual ATP.
RB E9989.

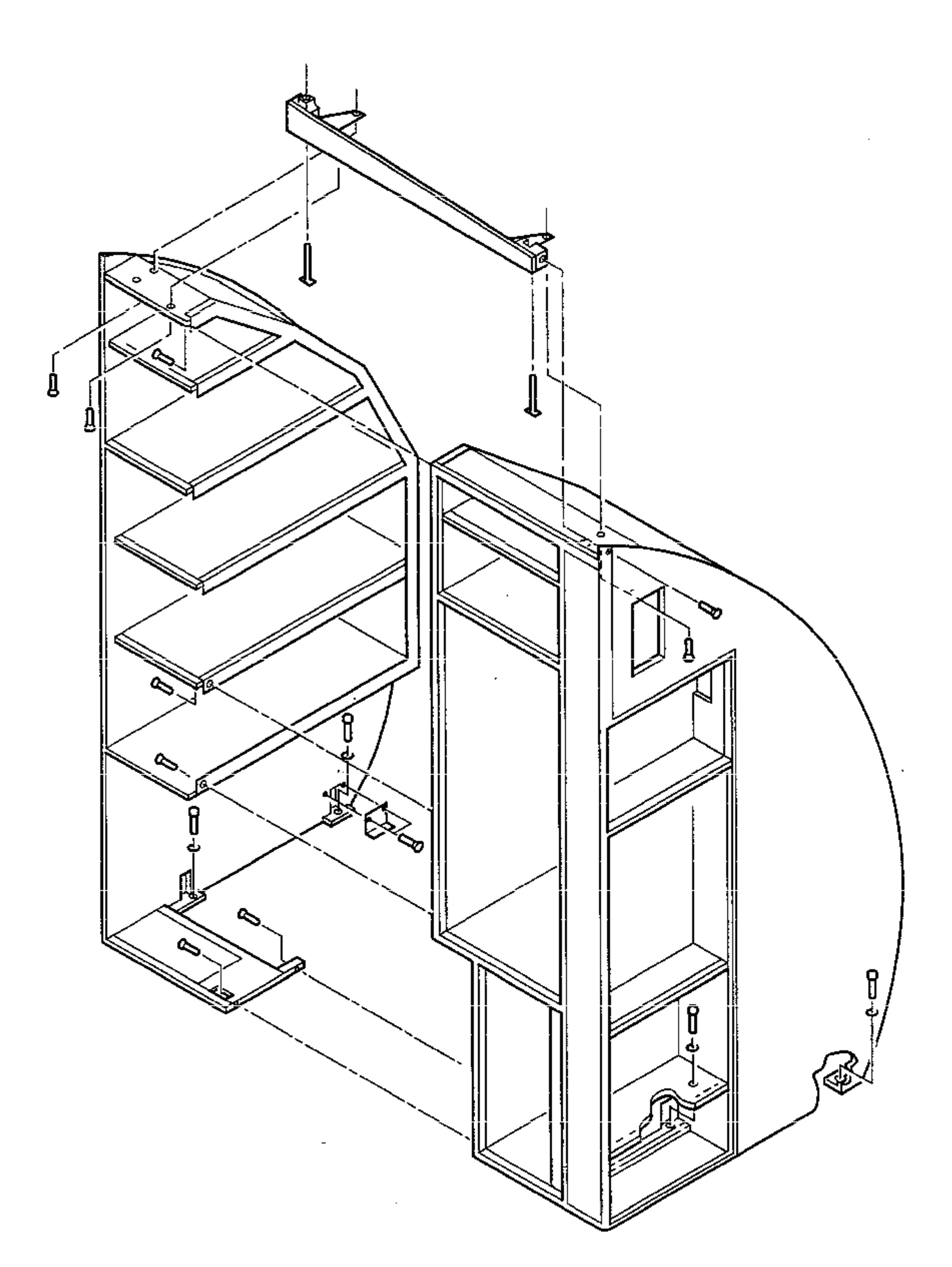
RB 3. Installation (Ref. Fig. 402)

NOTE: Wet assemble all metal to metal parts in accordance with 20-22-14.

RB A. Reassemble CSU Structure

RB (1) Reassemble in accordance with the above figure,
RB depending on state of disassembly.

RB NOTE: Detailed structural assembly instructions are in
RB Component Maintenance Manual ATP. E9939.



CMB 25 23 14 4 ACM0 00

RB

CSU Splitline/Installation
Figure 402

B. Install Equipment in Cabin Services Unit (Ref. Fig. 401)

(1) Remove the blank cover from the large diameter flexible hose and ensure that the hose is unobstructed. Connect the flexible hose to the fresh air outlet and secure the hose with a clip.

(2) Observe the oxygen safety precautions (Ref. 35-00-00, Servicing). Remove the protective caps from the pipe ends and connect the oxygen pipe between the oxygen pressure switches (H1233 and H1234) located in the CSU top compartment, to the T-piece in the roof. Torque-tighten the T-piece union nut to between 170 and 190 lbf in (1.92 and 2.14 mdaN).

(3) Install the oxygen pressure switches (H1233 and H1234) in the CSU top compartment (Ref. 35-21-14, Removal/ Installation). Secure the electrical cables to the vertical panel with P-clips.

(4) Install the radiation detector ensuring the bonding cable is reconnected (Ref. 31-22-11, Removal/ Installation).

(5) Install the galley supplies electrical connector (U2208) at the top forward face of the aft bulkhead. Secure the mounting plate to the bulkhead with screws.

(6) Position the tape reproducer (R245) in its rack and tighten the knurled fasteners.

(7) Position the tape reproducer control unit (R246) in the top panel. Secure it to the mounting angles with screws. Connect the electrical connector (R246A) to the control unit. Reconnect the bonding cable.

(8) Install the razor static inverter (M212) in the stub bulkhead stowage (Ref. 25-41-00, Removal/Installation).

(9) Install the stewards' lighting control unit (1-221).

(a) Position the control unit in its mounting, lower the front panel of the control unit and secure the unit in its housing with washers and screws.

(b) Close the front panel and secure the quick-release fasteners.

R **ON A/C 001-006,

CABIN SERVICES STOWAGE (LEFT-HAND) - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

A cabin services stowage is situated on the left-hand side of the aisle at the rear of the aft passenger compartment. The stowage consists of a honeycomb core bulkhead and a stewards seat structure, joined by shelves. The stowage, which is secured to the fuselage pressure shell with spigots and to the seat rails with foot fittings, is removed complete with the stewards seat.

2. Stowage (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-

B. Prepare

(1) Trip the circuit breakers listed below and fit safety clips:

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF.
FLT DECK ROOF LTS SUP	14-215	L232	C11
PASS CALL SUP	15-216	M78	A22
FASTEN SEAT BELTS SUP	1-213	W191	L8
NO SMOKING SUP	1-213	W192	L9
CABIN NIGHT LTS SUP	5-213	L455	D19
RH AFT PASS RDG LTS TRANS SUP	13-215	L886	E11

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF.
LH AFT PASS RDG LTS TRANS SUP	13-215	L887	E12
CABIN EMER LTS BATT CHG & EXIT SIGN SUP	1-213	L831	Q22
EMER EVAC ALERT SUP	1-213	W591	S21

(2) Remove loose items from the stowage noting the positions of each item.

(3) Remove the plastic capping strip in each seat rail inside the stowage.

C. Remove

(1) Disconnect the electrical cables from the galley electric light connector (UB1449) located high on the stowage unit forward bulkhead.

(2) Remove the screws securing the louvre outlet at the top left-hand side of the stewards seat structure. Remove the louvre.

(3) Remove the socket-head screws securing the louvre box. Withdraw the louvre box from the panel, undo the cable tie securing the flexible hose to the louvre box flange, and remove the louvre box. Fit a blank cover to the open end of the flexible hose.

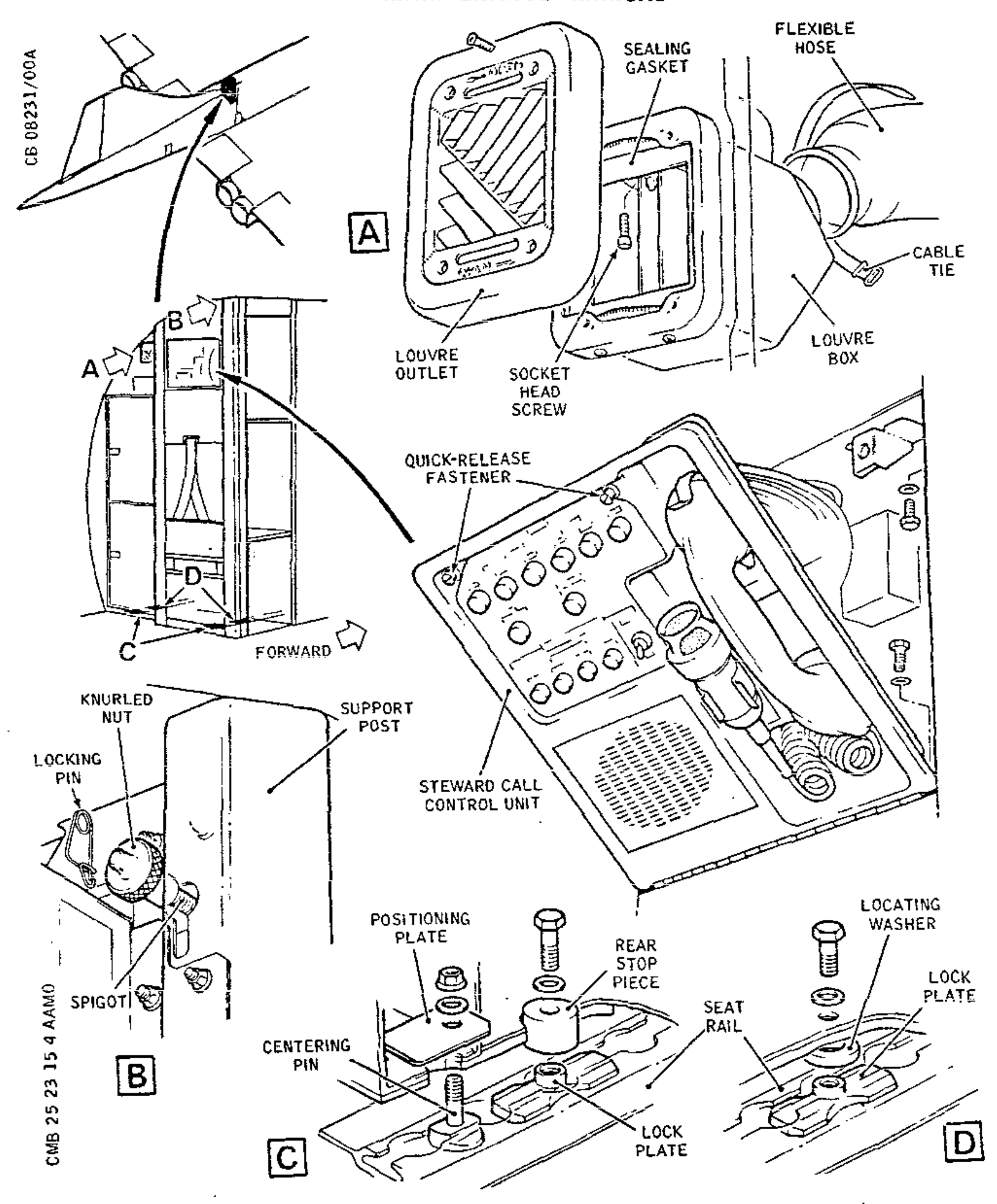
(4) Remove the emergency evacuation alert panel. (Ref. 25-67-12, Removal/Installation).

(5) Remove the stewards call control unit:

(a) Release the quick-release fasteners and lower the front panel of the stewards call control unit on its hinges.

(b) Remove the bolts and washers securing the control unit to the bulkhead housing.

(c) Withdraw the control unit from its housing, and disconnect connectors U1328 and U1329. Remove



Cabin Services Stowage LH - Installation
Figure 401

the control unit.

(6) Remove the trim panel above the stewards call control unit by pulling it out towards the rear of the aircraft to disengage the hook and loop self-attaching tapes.

(7) Remove the emergency battery pack as detailed in 33-51-00, Removal/Installation.

(8) Remove the two passenger reading lights 600VA transformers, as detailed in 33-24-00, Removal/Installation.

(9) Disengage the spigots at the top of each stewards seat support post:

(a) Remove the locking pin.

(b) Unscrew the knurled nut until it is clear of its recess and withdraw the spigot from the fitting on the fuselage structure.

(10) Remove each foot fitting:

(a) Remove the nut, washer and positioning plate securing the aft end of the stowage to the seat rail. Note the location of the positioning plate.

(b) Slide the centring pin rearward to clear its locating slot in the foot fitting and the seat rail. Remove it from the seat rail and foot fitting.

(c) From inside the stowage remove the hexagon head bolt, washer and rear stop piece securing the aft end of the stowage to each seat rail.

(d) From inside the stowage remove the hexagon head bolt and washer securing the forward end of the stowage to each seat rail.

(11) Remove the stowage unit complete with the stewards seat. Recover the locating washers, lock plates, and shims (where fitted), in the seat rails. Note their respective positions.

NOTE: Shims of varying thicknesses are positioned at the foot fitting locations to take up seat rail unevenness. Note the position of such

shims.

D. Install

(1) Comply with the electrical safety precautions.

(2) Ensure that the seat rails are clean and unobstructed.

(3) Position the lock plates and the locating washers in their respective positions in the seat rails. Where necessary re-locate the shims to take up seat rail unevenness.

(4) Position the stowage unit on the seat rails and install the washers and bolts for the inner and outer seat rail fittings at the forward end inside the stowage. Hand tighten each bolt at this stage.

(5) Fit the rear stop pieces over the plates in the inner and outer seat rails at the aft end inside of the stowage. Secure them with washers and bolts.

(6) Fit the centring pins in the inner and outer seat rails through the slotted hole in each foot fitting at the aft end of the stowage. Slide the pins forward to engage with the slot in the rails and the foot fitting.

(7) Fit the positioning plates, washers and nuts on the centring pins. Hand tighten each nut at this stage.

(8) Push the spigot at the top of each steward seat support post into engagement with the fitting on the fuselage structure, tighten the knurled nut until it enters its recess, and lock it with a locking pin.

(9) Tighten the nuts and bolts on the foot fittings, and fit the plastic capping strip in each seat rail inside the stowage.

(10) Remove the blank cover from the flexible hose and ensure that the hose is not obstructed. Position the louvre box and connect the flexible hose to the box; secure the hose with a cable tie.

(11) Align the holes in the louvre box with the socket-head screwholes; secure the box to the panel angles with screws.

(12) Position the louvre outlet, ensure that it seats against the sealing gasket on the flap unit, and secure it with screws.

(13) Connect the electrical cables to the galley electric light connector (UB 1449) located high on the stowage unit forward bulkhead. (Ref. Wiring Diagram Manual 33-23-21).

(14) Install the two passenger reading light 600VA transformers as detailed in 33-24-00, Removal/ Installation.

(15) Install the emergency battery pack as detailed in 33-51-00, Removal/Installation.

(16) Position the top trim panel and press it firmly into position to engage the hook and loop self-attaching tape.

(17) Install the emergency evacuation alert panel (Ref.25-67-12, Removal/Installation).

(18) Install the stewards call control unit:

(a) Support the control unit and connect the plugs U1328 and U1329 to their respective receptacles.

(b) Position the control unit in its bulkhead housing, lower the front panel of the control unit and secure the unit in the housing with washers and bolts.

(c) Close the front panel and secure the quick-release fasteners.

E. Conclusion

(1) Reset the circuit breakers previously tripped.

(2) Make available electrical ground power as detailed in 24-41-00.

(3) Test the galley lighting by operating the switch on the galley lintel.

(4) Test the passenger reading light transformers as detailed in the para "600VA Tranformer", ref. 33-24-00, Removal/Installation.

(5) Test the emergency battery pack as detailed in the para. "Emergency Battery Pack", ref. 33-51-00, Removal/Installation.

(6) Test the stewards call control panel (Ref. 33-27-00, Adjustment/Test).

(7) Test the emergency evacuation alert panel (Ref. 25-67-00, Adjustment/Test).

R **ON A/C 007-007,

CABIN SERVICES STOWAGE (LEFT-HAND) - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The cabin services stowage is situated on the left-hand side of the aisle at the rear of the aft passenger compartment. The stowage comprises a bulkhead and a stewards seat structure, joined by shelves which house five meal tray containers. The stowage, which is attached to the fuselage pressure shell with spigots and secured to the seat rails with foot fittings, is removed complete with the stewards seat.

2. Stowage (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Non-corrodible wire 0.028 in (0.7 mm) dia.	-

B. Prepare

(1) Trip the circuit breakers listed below and fit safety clips:

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
FLT DECK ROOF LTS SUP	14-215	L232	C11
PASS CALL SUP	15-216	M78	A22
FASTEN SEAT BELTS SUP	1-213	W191	L8
NO SMOKING SUP	1-213	W192	L9
CABIN NIGHT LTS SUP	5-213	L455	D19

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
RH AFT PASS RDG LTS TRANS SUp	13-215	L886	E11
LH AFT PASS RDG LTS TRANS SUP	13-215	L887	E12
CABIN EMER LTS BATT CHG & EXIT SIGN SUP	1-213	L831	Q22
EMER EVAC ALERT SUP	1-213	W591	S21

(2) Remove loose items from the stowage noting the positions of each item.

(3) Release the quick-release latches and remove the five meal tray containers.

C. Remove (Ref. Fig. 401)

(1) Remove the screws and washers securing the cover protecting the spare electric light connector, located high on the aft face of the stowage unit forward bulkhead. Remove the cover and disconnect the electrical cables from the connector (UB 1449).

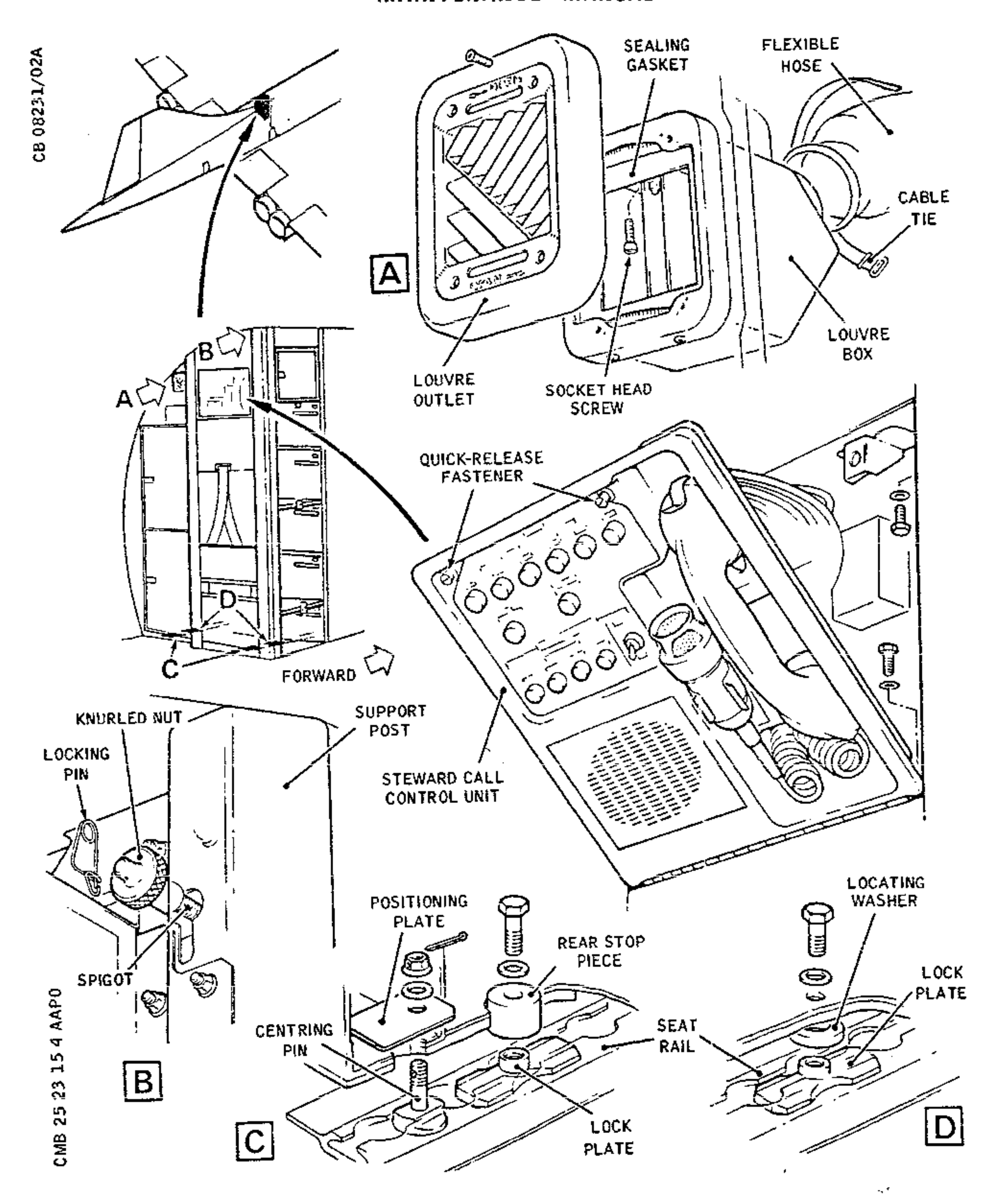
(2) Remove the screws securing the louvre outlet at the top left-hand side of the stewards seat structure. Remove the louvre.

(3) Remove the socket-head screws securing the louvre box. Withdraw the louvre box from the panel, undo the cable tie securing the flexible hose to the louvre box flange, and remove the louvre box. Fit a blank cover to the open end of the flexible hose.

(4) Remove the emergency evacuation alert panel (Ref. 25-67-12, Removal/Installation).

(5) Remove the stewards call control unit:

(a) Release the quick-release fasteners and lower the front panel of the stewards call control unit on its hinges.



Cabin Services Stowage (LH) - Installation
Figure 401

(b) Remove the bolts and washers securing the control unit to the bulkhead housing.

(c) Withdraw the control unit from its housing, and disconnect connectors U1328 and U1329. Remove the control unit.

(6) Remove the trim panel above the stewards call control unit by pulling it out towards the rear of the aircraft to disengage the hook and loop self-attaching tapes.

(7) Remove the emergency battery pack (Ref. 33-51-00, Removal/Installation).

(8) Remove the two passenger reading lights 600VA transformers (Ref. 33-24-00, Removal/Installation).

(9) Disengage the spigots at the top of each stewards seat support post:

(a) Remove the locking pin.

(b) Unscrew the knurled nut until it is clear of its recess and withdraw the spigot from the fitting on the fuselage structure.

(10) Remove each foot fitting:

(a) Remove the split pin, nut, washer and positioning plate securing the aft end of the stowage to the seat rail. Note the location of the positioning plate.

(b) Slide the centreing pin rearward to clear its locating slot in the foot fitting and the seat rail. Remove it from the seat rail and foot fitting.

(c) From inside the stowage remove the locking wire and the bolt, washer and rear stop piece securing the aft end of the stowage to each seat rail.

(d) From inside the stowage remove the locking wire and the bolt and washer securing the forward end of the stowage to each seat rail.

(11) Remove the stowage unit complete with the stewards seat. Recover the locating washers, lock plates, and shims (where fitted), in the seat rails. Note their respective positions.

NOTE: Shims of varying thickness may have been positioned at the foot fitting locations to take up seat rail unevenness. Note their positions.

D. Install (Ref. Fig. 401)

(1) Comply with the electrical safety precautions.

(2) Ensure that the seat rails are clean and unobstructed.

(3) Position the lock plates and the locating washers in their respective positions in the seat rails. Where necessary re-locate the shims to take up seat rail unevenness.

(4) Position the stowage unit on the seat rails and install the washers and bolts for the inner and outer seat rail fittings at the forward end inside the stowage. Hand tighten each bolt at this stage.

(5) Fit the rear stop pieces over the plates in the inner and outer seat rails at the aft end inside of the stowage. Secure them with washers and bolts.

(6) Fit the centreing pins in the inner and outer seat rails through the slotted hole in each foot fitting at the aft end of the stowage. Slide the pins forward to engage with the slot in the rails and the foot fitting.

(7) Fit the positioning plates, washers and nuts on the centreing pins. Hand tighten each nut at this stage.

(8) Push the spigot at the top of each steward seat support post into engagement with the fitting on the fuselage structure, tighten the knurled nut until it enters its recess, and lock it with a locking pin.

(9) Tighten the nuts and bolts on the foot fittings. Lock each of the nuts with a split pin and each of the bolts with wire.

(10) Remove the blank cover from the flexible hose and ensure that the hose is not obstructed. Position the louvre box and connect the flexible hose to the box; secure the hose with a cable tie.

(11) Align the holes in the louvre box with the screwholes; secure the box to the panel angles with socket head screws.

(12) Position the louvre outlet, ensure that its seats against the sealing gasket on the flap unit, and secure it with screws.

(13) Connect the electrical cables to the spare electric light connector (UB 1449), located high on the aft face of the stowage unit forward bulkhead. Refit the protective cover over the connector and secure it with washers and screws.

(14) Install the two passenger reading light 600VA transformers (Ref. 33-24-00, Removal/Installation).

(15) Install the emergency battery pack (Ref. 33-51-00, Removal/Installation).

(16) Position the top trim panel and press it firmly into position to engage the hook and loop self-attaching tape.

(17) Install the emergency evacuation alert panel (Ref. 25-67-12, Removal/Installation).

(18) Install the stewards call control unit:

(a) Support the control unit and connect the plugs U1328 and U1329 to their respective receptacles.

(b) Position the control unit in its bulkhead housing, lower the front panel of the control unit and secure the unit in the housing with washers and bolts.

(c) Close the front panel and secure the quick-release fasteners.

E. Conclusion

(1) Reset the circuit breakers previously tripped.

(2) Make available electrical ground power as detailed in 24-41-00.

(3) Test the passenger reading light transformers as detailed in the para. "600VA Transformer" (Ref. 33-24-00, Removal/Installation).

(4) Test the emergency battery pack as detailed in the para. "Emergency Battery Pack" (Ref. 33-51-00, Removal/Installation).

(5) Test the stewards call control panel (Ref. 33-27-00, Adjustment/Test).

(6) Test the emergency evacuation alert panel (Ref. 25-67-00, Adjustment/Test).

(7) Replace the five meal tray containers and secure them with the quick-release latches.

(8) Replace the loose items in the stowage in their respective positions.

R **ON A/C 001-006,

CABIN SERVICES STOWAGE (RIGHT-HAND) - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

A cabin services stowage is situated on the right-hand side of the aisle, at the rear of the aft passenger compartment. It consists of a honeycomb core bulkhead and a stewards seat structure joined by shelves. The stowage, which is secured to the fuselage pressure shell with spigots and to the seat rails with foot fittings, is removed complete with the stewards seat.

R B Mod 25C506 - Introduces a stowage box (Ref.BA drawing 0-55162)

2. Stowage (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-

B. Prepare

(1) Electrically isolate No.6 galley lighting by tripping the FLT DECK ROOF LTS SUP circuit breaker L232 map ref.C11 on panel 14-215 in the flight compartment. Fit a safety clip.

(2) Remove loose items from the stowage noting the position of each item.

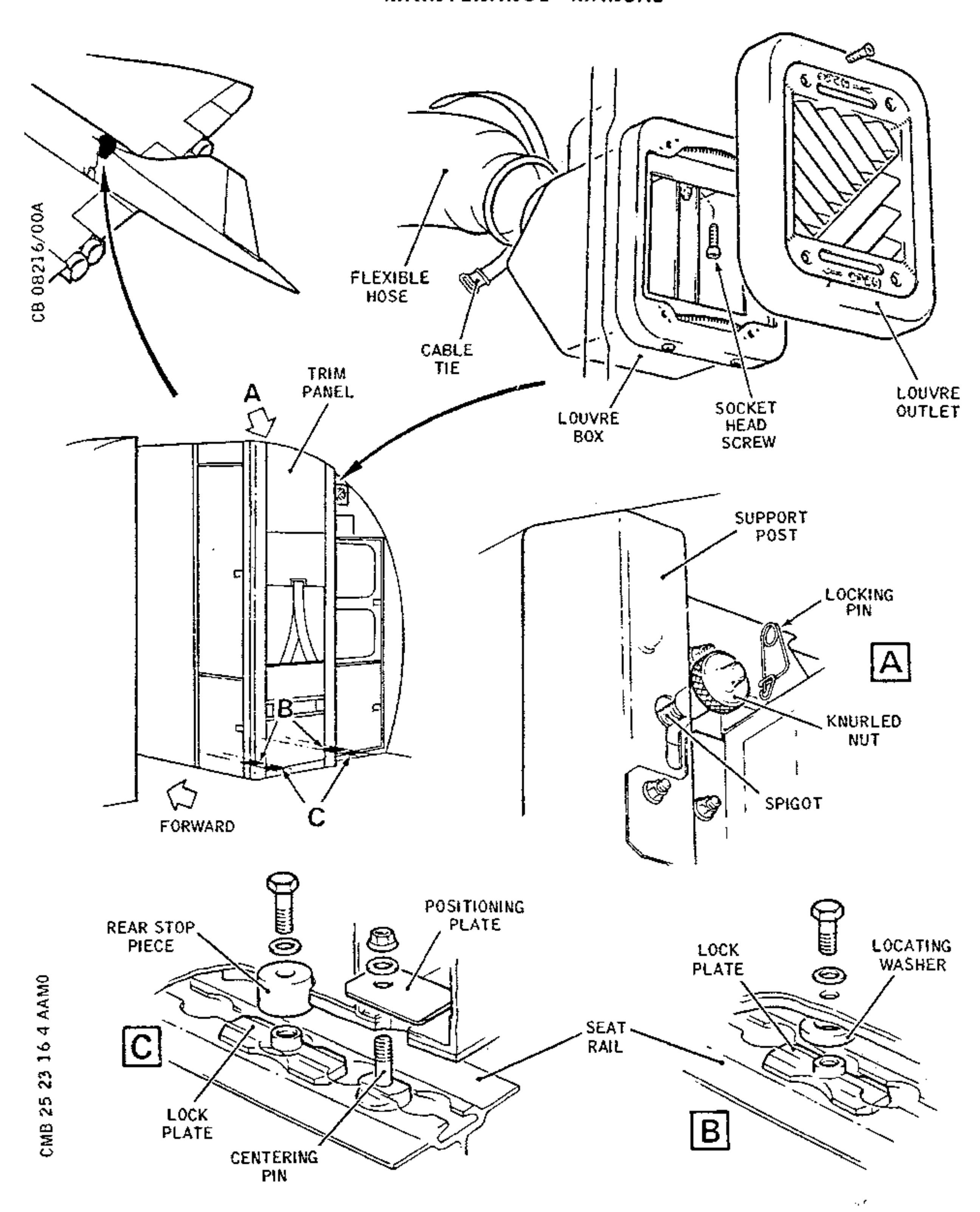
(3) Remove the plastic capping strip in each seat rail inside the stowage.

C. Remove

(1) Disconnect the electrical cables from the galley electric light connector (UB 1448) located high on the stowage forward bulkhead.

(2) Remove the screws securing the louvre outlet at the top right-hand side of the stewards seat structure.

Printed in England



Cabin Services Stowage RH - Installation
Figure 401

Remove the louvre outlet.

(3) Remove the socket-head screws securing the louvre box. Withdraw the louvre box from the panel, undo the cable tie securing the flexible hose to the louvre box flange and remove the box. Fit a blank cover to the open end of the flexible hose.

(4) Pull the top trim panel above the stewards seat out towards the rear of the aircraft to disengage the hook and loop self-attaching tapes. Remove the panel to gain access to the spigots in the stewards seat support posts securing the stowage unit to the fuselage structure.

(5) Disengage the top of each stewards seat support post:

(a) Remove the locking pin.

(b) Unscrew the knurled nut until it is clear of its recess and withdraw the spigot from the fitting on the fuselage structure.

(6) Remove each foot fitting:

(a) Remove the nut, washer and positioning plate securing the aft end of the stowage to the seat rail (Ref. Detail C). Note the location of the positioning plate.

(b) Slide the centring pin rearward to clear its locating slot in the foot fitting and the seat rail. Remove it from the seat rail and foot fitting.

(c) From inside the stowage, remove the hexagon head bolt, washer and rear stop piece securing the aft end of the stowage to the inner and outer seat rails (Ref. Detail C).

(d) From inside the stowage, remove the hexagon head bolt and washer securing the forward end of the stowage to the inner and outer seat rails (Ref. Detail B).

(7) Remove the stowage complete with the stewards seat. Recover the locating washers, the lock plates and shims (when fitted) from the seat rails. Note their respective positions.

NOTE: Shims of varying thicknesses may have been

installed at the foot fitting locations to take up seat rail unevenness. Note the position and thickness of such shims.

D. Install

(1) Comply with the electrical safety precautions.

(2) Ensure that the seat rails are clean and unobstructed.

(3) Position the lock plates and the locating washers in their respective positions in the seat rails (Ref. Details B & C).
Where necessary re-locate the shims to take up seat rail unevenness.

(4) Position the stowage on the seat rails and install the washers and bolts for the inner and outer seat rail fitting at the forward end inside of the stowage unit. Hand tighten each bolt at this stage.

(5) Fit the rear stop pieces over the plates in the inner and outer seat rails at the aft end of the stowage unit. Secure them with washers and bolts.

(6) Fit the centring pins in the inner and outer seat rails through the slotted hole in each foot fitting at the aft end of the stowage. Slide the pins forward to engage in the slot in the seat rails and foot fittings.

(7) Fit the positioning plates, washers and nuts on the centring pins. Hand tighten each nut at this stage.

(8) Push the spigot at the top of each stewards seat support post into engagement with the fuselage structure fittings (Ref. Detail A). Tighten the knurled nut until it enters its recess, and lock it with a locking pin.

(9) Tighten the nuts and bolts on the foot fittings, and refit the plastic capping strip in each seat rail inside the stowage.

(10) Position the top trim panel above the stewards seat and press firmly into position to engage the hook and loop self-attaching tapes.

(11) Remove the blank cover from the flexible hose and ensure that the hose is not obstructed. Position

Printed in England

the louvre box and connect the flexible hose to the box; secure the hose with a cable tie.

(12) Align the holes in the louvre box with the socket-head screw holes; secure it to the panel angles with screws.

(13) Position the louvre outlet, ensure that it seats against the sealing gasket on the flap unit, and secure it with screws.

(14) Connect the electrical cables to the galley electric light connector (UB 1448) located high on the stowage unit forward bulkhead. (Ref. Wiring Diagram Manual, 33-23-21).

D. Conclusion

(1) Reset the circuit breakers previously tripped (Ref. para.2.B.)

(2) Make available electrical ground power as detailed in 24-41-00.

(3) Test the galley lighting by operating the switch on the galley lintel.

R **ON A/C 007-007,

CABIN SERVICES STOWAGE (RIGHT-HAND) - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The cabin services stowage is situated on the right-hand side of the aisle, at the rear of the aft passenger compartment. The stowage comprises a bulkhead and a stewards seat structure, joined by shelves which house four meal tray containers. The stowage, which is attached to the fuselage pressure shell with spigots and secured to the seat rails with foot fittings, is removed complete with the stewards seat.

R B Mod 25C506 - Introduces a stowage box (Ref.BA drawing 0-55162).

2. Stowage (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Non-corrodible wire 0.028 in (0.7 mm) dia.	-

B. Prepare

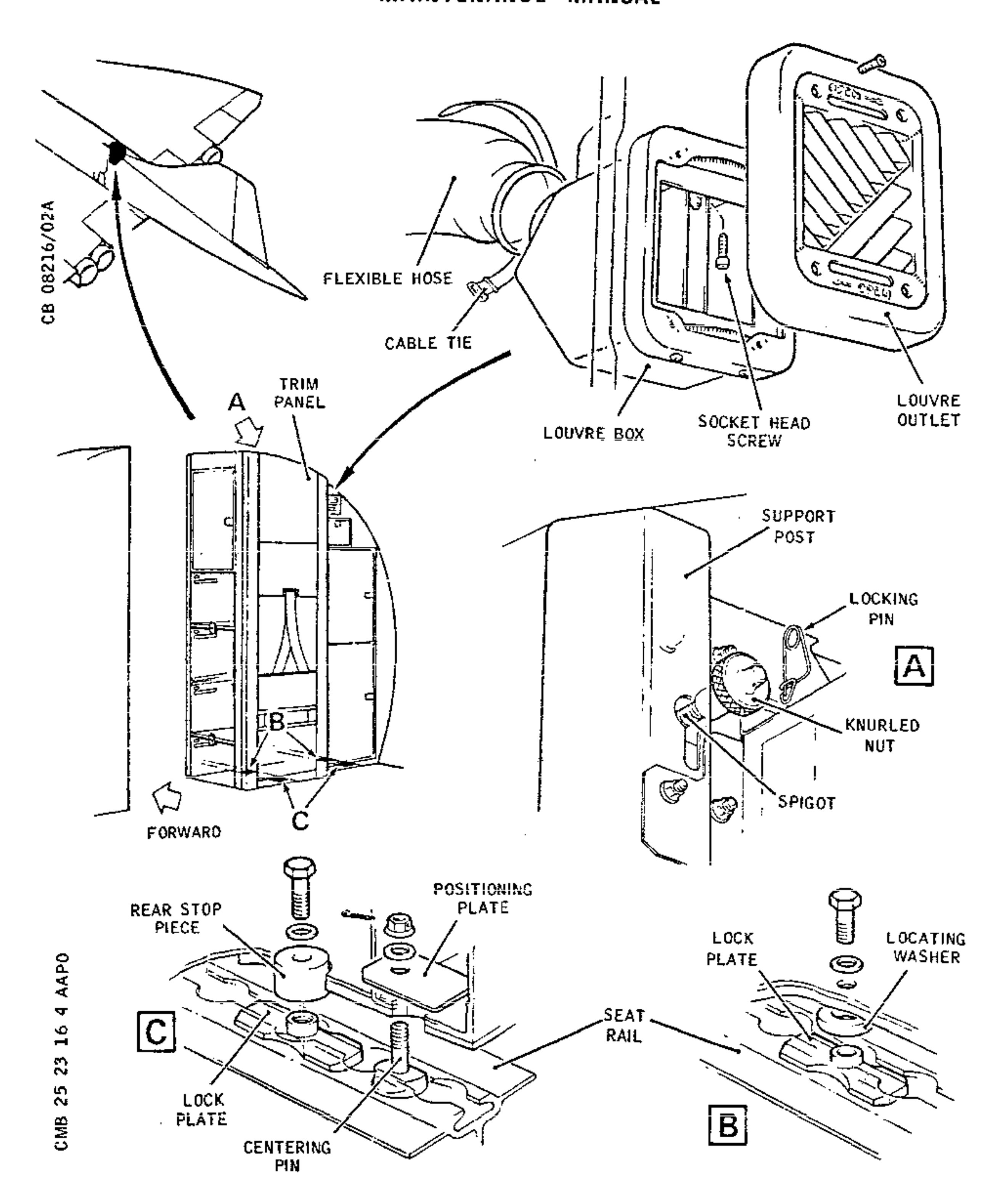
(1) Electrically isolate the spare lighting connector inside the stowage, by tripping the FLT DECK ROOF LTS SUP circuit breaker L232, map ref. C11 on panel 14-215 in the flight compartment. Fit a safety clip.

(2) Remove loose items from the stowage noting the position of each item.

(3) Release the quick-release latches and remove the four meal tray containers.

C. Remove (Ref. Fig. 401)

(1) Remove the screws and washers securing the cover protecting the spare electric light connector, located high on the aft face of the stowage unit



Cabin Services Stowage (RH) - Installation
Figure 401

forward bulkhead. Remove the cover and disconnect the electrical cables from the connector (UB 1448).

(2) Remove the screws securing the louvre outlet at the top right-hand side of the stewards seat structure. Remove the louvre outlet.

(3) Remove the socket-head screws securing the louvre box. Withdraw the louvre box from the panel, undo the cable tie securing the flexible hose to the louvre box flange and remove the box. Fit a blank cover to the open end of the flexible hose.

(4) Pull the top trim panel above the stewards seat out towards the rear of the aircraft to disengage the hook and loop self-attaching tapes. Remove the panel to gain access to the spigots, in the stewards seat support posts, securing the stowage unit to the fuselage structure.

(5) Disengage the top of each stewards seat support post:

(a) Remove the locking pin.

(b) Unscrew the knurled nut until it is clear of its recess and withdraw the spigot from the fitting on the fuselage structure.

(6) Remove each foot fitting:

(a) Remove the split pin, nut, washer and positioning plate securing the aft end of the stowage to the seat rail. Note the location of the positioning plate.

(b) Slide the centreing pin rearward to clear its locating slot in the foot fitting and the seat rail. Remove it from the seat rail and foot fitting.

(c) From inside the stowage, remove the locking wire and the bolt, washer and rear stop piece securing the aft end of the stowage to the inner and outer seat rails.

(d) From inside the stowage, remove the locking wire and bolt and washer securing the forward end of the stowage to the inner and outer seat rails.

(7) Remove the stowage, complete with the stewards seat.

Recover the locating washers, the lock plates and shims (when fitted) from the seat rails. Note their respective positions.

NOTE: Shims of varying thickness may have been positioned at the foot fitting locations to take up seat rail unevenness. Note their positions.

D. Install (Ref. Fig. 401)

(1) Comply with the electrical safety precautions.

(2) Ensure that the seat rails are clean and unobstru-cted.

(3) Position the lock plates and the locating washers in their respective positions in the seat rails. Where necessary re-locate the shims to take up seat rail unevenness.

(4) Position the stowage on the seat rails and install the washers and bolts for the inner and outer seat rail fitting at the forward end inside of the stowage unit. Hand tighten each bolt at this stage.

(5) Fit the rear stop pieces over the plates in the inner and outer seat rails at the aft end of the stowage unit. Secure them with washers and bolts.

(6) Fit the centreing pins in the inner and outer seat rails through the slotted hole in each foot fitting at the aft end of the stowage. Slide the pins forward to engage in the slot in the seat rails and foot fittings.

(7) Fit the positioning plates, washers and nuts on the centreing pins. Hand tighten each nut at this stage.

(8) Push the spigot at the top of each stewards seat support post into engagement with the fuselage structure fittings, tighten the knurled nut until it enters its recess, and lock it with a locking pin.

(9) Tighten the nuts and bolts on the foot fittings. Lock each of the nuts with a split pin and each of the bolts with wire.

(10) Position the top trim panel above the stewards seat and press firmly into position to engage the hook and

loop self-attaching tapes.

(11) Remove the blank cover from the flexible hose and ensure that the hose is not obstructed. Position the louvre box and connect the flexible hose to the box; secure the hose with a cable tie.

(12) Align the holes in the louvre box with the screw holes; secure it to the panel angles with socket head screws.

(13) Position the louvre outlet, ensure that it seats against the sealing gasket on the flap unit, and secure it with screws.

(14) Connect the electrical cables to the spare electric light connector (UB 1448), located high on the aft face of the stowage unit forward bulkhead. Refit the protective cover over the connector and secure it with washers and screws.

D. Conclusion

(1) Reset the circuit breaker previously tripped.

(2) Make available electrical ground power as detailed in 24-41-00.

(3) Replace the four meal tray containers and secure them with the quick-release latches.

(4) Replace the loose items in the stowage in their respective positions.

INTERMEDIATE VESTIBULE AMENITY STOWAGES - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The amenity stowages, situated one each side of the intermediate vestibule at the entrance to the rear passenger compartment, comprise two bulkheads separated by a vertical diaphragm and shelves which are enclosed by doors.

The left-hand stowage, housing a stewards call control unit on its forward face in the vestibule, is secured to the steward seat support posts.

The right-hand stowage, housing a digital machmeter on its aft face in the rear passenger compartment, is secured to the stub bulkhead post with bolts, to the roof structure by a spigot and the seat rail by a foot fitting.
Each of the stowages are also connected to the left or the right hand vestibule stub bulkheads, as appropriate, by shelves and surrounds.

2. Left-Hand Amenity Stowage (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Double sided adhesive tape, CM722 (Ref. 20-30-00, No.180)	-

B. Prepare to Remove LH Amenity Stowage

(1) Trip the circuit breakers listed below and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
PASS CALL SUP	15-216	M78	A22
FASTEN S/BELTS SUP	1-213	W191	L 8

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
NO SMOKING SUP	1-213	W192	L 9
VESTIBULE & BOARDING LTS SUP	25-216	L692	C 1
CABIN NIGHT LTS SUP	5-213	L455	D19
FLT DECK ROOF LTS SUP	14-215	L232	C11

(2) Undo the quick-release fasteners and lower the face panel of the stewards call control unit on its hinges.

(3) Remove the bolts and washers securing the stewards seat unit top panel to the top of the stewards call control unit box; remove the panel.

(4) Disconnect the electrical connectors U2987 and U2988 at the top of the call control unit box, and remove the electrical loom from the conduit on the amenity stowage aft bulkhead.

(5) Remove the bolts and washers securing the call control unit box in its housing; remove the call control unit.

(6) Remove the trim panel from the inboard face of the amenity stowage. To do this, remove the steward seat back-rest by pulling it out to disengage the hook-and-loop interlocking tapes. Undo the screws and remove the trim post from the inboard seat post. Remove the trim panel.

(7) Peel back the carpet lining the passenger footwell in the aft bulkhead of the amenity stowage.

C. Remove LH Amenity Stowage (Ref. Fig. 401).

(1) Open the doors on the stub bulkhead. Remove the screws and washers securing the shelves and stowage surrounds to the amenity stowage aft bulkhead.

(2) Open the amenity stowage doors.

(3) Remove the screws and washers securing the stub bulkhead stowage shelves to the fore-and-aft diaphragm.

Left-Hand Amenity Stowage - Installation
Figure 401

(4) Remove the seven countersunk-head bolts securing the amenity stowage to the inboard seat post.

(5) Remove the eight hexagon-head bolts and washers securing the amenity stowage to the outboard seat post; remove the stowage.

NOTE: To remove the top bolt it is necessary to remove the access panel in the top panel of the stowage. The bottom bolt is located in the passenger footwell.

D. Install LH Amenity Stowage (Ref. Fig. 401)

(1) Observe the electrical safety precautions.

(2) Position the amenity stowage against the left-hand stewards seat posts and the stub bulkhead.

(3) From inside the amenity stowage:

(a) Secure the stowage to the inboard seat post with seven countersunk-head bolts.

(b) Secure the stowage to the outboard seat post with eight washers and hexagon-head bolts.

NOTE: Access for the top bolt is via the access panel in the amenity stowage top panel.

Access for the bottom bolt is in the passenger footwell.

(c) Fit the electrical loom for the stewards call control unit in the conduit on the amenity stowage aft bulkhead.

(d) Refit the access panel and secure it to the top panel with washers and bolts.

(e) Secure the stub bulkhead stowage shelves to the fore-and-aft diaphragm with washers and screws.

(4) From inside the stub bulkhead stowage, secure the shelves and stowage surrounds to the amenity stowage aft bulkhead with washers and screws.

(5) Fit the trim panel to the inboard face of the amenity stowage and secure it by attaching the trim post to the stewards seat inboard seat post with screws.

Refit the stewards seat back-rest.

(6) Position the stewards call control unit box and secure it in its housing with washers and bolts. Connect the electrical connectors U2987 and U2988 at the top of the unit.

(7) Position the stewards seat top panel on top of the stewards call control box and secure it with washers and bolts. Close the call control unit face panel and secure the quick-release fasteners.

(8) Secure the carpet to the footwell using a new strip of double sided adhesive tape.

(9) Adjust the trim angle, on the aft face of the amenity stowage, up to the ceiling panel and tighten the bolt located inside the light lens.

E. Conclusion

(1) Reset the circuit breakers previously tripped.

(2) Make available electrical ground power as detailed in 24-41-00.

(3) Test the stewards call control unit (Ref. 33-27-00, Adjustment/Test).

(4) Close all amenity stowage and stub bulkhead doors ensuring that each door is retained satisfactorily in the closed position by the catch.

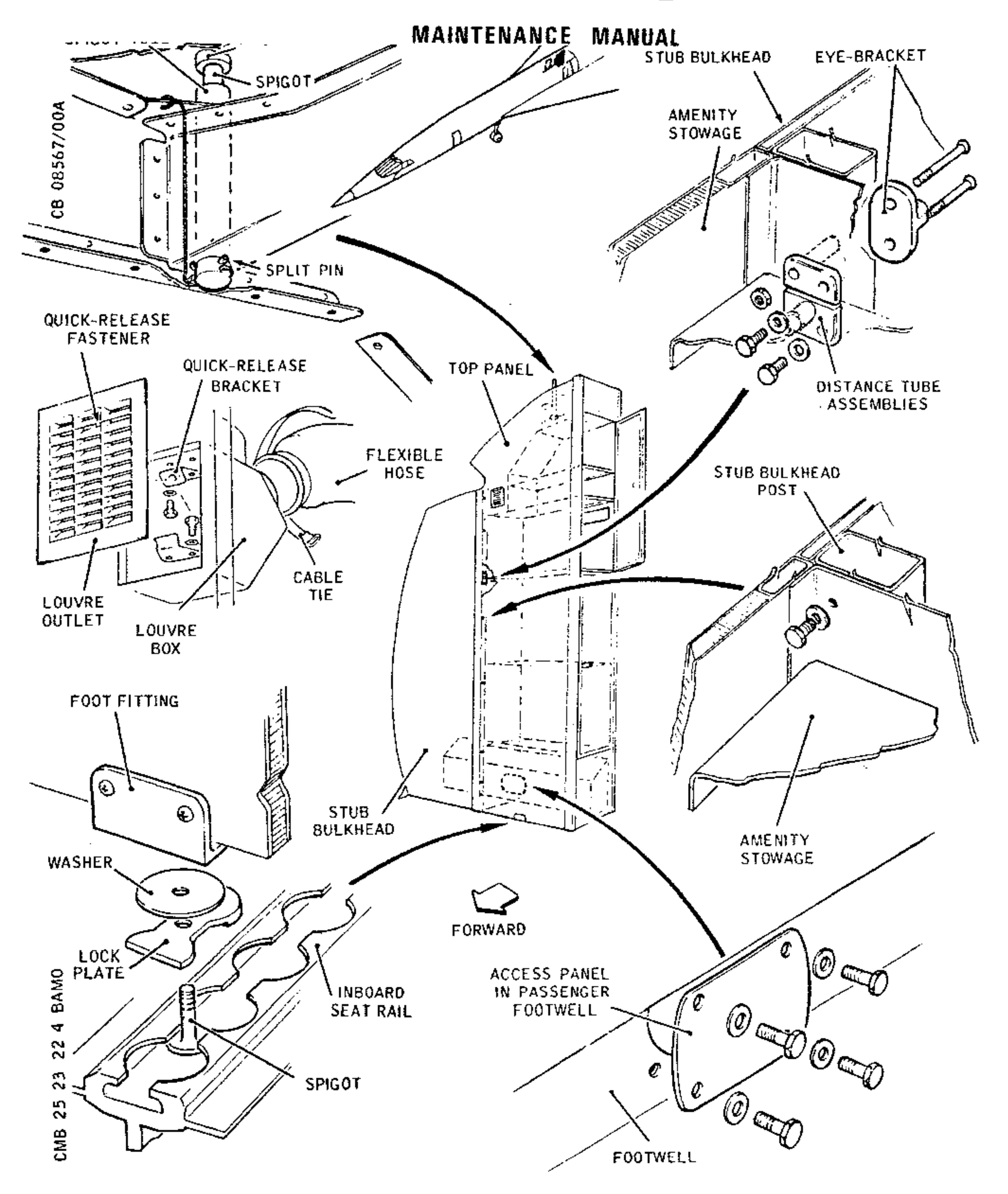
3. Right-Hand Amenity Stowage (Ref. Fig. 402)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Double sided adhesive tape CM722 (Ref. 20-30-00, No.180)	-

B. Prepare to Remove RH Amenity Stowage

(1) Open the upper door of the amenity stowage and



Right-Hand Amenity Stowage - Installation
Figure 402

disconnect the electrical connector 4F80-A from the machmeter (Ref. 34-11-27, Removal/Installation).

(2) Remove the screws and washers securing the top panel inside the top compartment of the amenity stowage to gain access to the securing spigot and the cabin machmeter electrical loom support conduit; remove the loom from the conduit.

C. Remove RH Amenity Stowage (Ref. Fig. 402)

(1) Undo the quick-release fastener securing the louvre outlet on the vestibule side of the amenity stowage; remove the louvre outlet.

(2) Remove the bolts and washers securing the louvre box. Withdraw the louvre box from the panel, remove the cable tie securing the flexible hose to the louvre box flange; remove the box. Fit a blank cover to the end of the flexible hose.

(3) From within the louvre box opening, remove the two bolts and washers securing the amenity stowage to the stub bulkhead post.

(4) Open the amenity stowage doors and, from inside the stowage, remove the four bolts and washers securing the amenity stowage to the stub bulkhead post.

(5) Peel back the carpet lining the passenger footwell in the aft bulkhead and remove the access panel. From within the access panel opening, remove the two bolts and washers securing the amenity stowage to the stub bulkhead post.

(6) From inside the amenity stowage, remove the screws and washers securing the stub bulkhead stowage shelves to the fore-and-aft diaphragm.

(7) Open the doors on the stub bulkhead. Remove the screws and washers securing the shelves and stowage surrounds to the amenity stowage aft bulkhead.

(8) Remove the two bolts and the nut securing the ditching line eye-bracket to the stub bulkhead post; remove the eye-bracket.

(a) From inside the amenity stowage, remove the two bolts and washers securing the upper and lower distance tube assemblies for the eye-bracket to the fore-and-aft diaphragm; remove the distance

tubes.

(10) Remove the two bolts securing the foot fitting to the bottom edge of the forward bulkhead.

(11) At the top of the stowage, remove the split pin securing the spigot in the spigot tube , and withdraw the spigot from its housing; remove the amenity stowage.

(12) Remove the nut securing the foot fitting, washer, lock plate and spigot to the inboard seat rail; remove the assembly from the seat rail.

D. Install RH Amenity Stowage (Ref. Fig. 402)

(1) Observe the electrical safety precautions.

(2) Position the spigot, lock plate, washer and foot fitting in the inboard seat rail and secure the assembly with a nut.

(3) Position the amenity stowage against the right-hand stub bulkhead. Align the spigot at the top of the stowage with the spigot housing. Push the spigot upward to engage in the housing and secure it with a split pin inserted through the spigot tube and spigot. Open the split pin sufficient only to retain it in position. Fit the electrical loom for the passenger cabin machmeter in the conduit on the amenity stowage aft bulkhead and feed it into the machmeter aperture. Connect electrical connector 4F80-A to the machmeter. (Ref. 34-11-27, Removal/ Installation).

(4) Fit the top panel and secure it with washers and screws.

(5) Secure the forward bulkhead to the foot fitting in the seat rail with two bolts.

(6) From inside the amenity stowage,secure the stowage to the stub bulkhead post with four washers and bolts.

(7) Through the louvre box opening on the forward bulkhead, secure the stowage to the stub bulkhead post with two washers and bolts.

(8) Through the access panel opening in the passenger footwell, secure the stowage to the stub bulkhead post with two washers and bolts. Refit the access panel

and secure the carpet to the footwell using a new strip of double sided adhesive tape.

(9) From inside the stub bulkhead stowage:

(a) Secure the shelves and stowage surrounds to the amenity stowage aft bulkhead with washers and screws.

(b) Position the upper and lower distance tube assemblies for the ditching line eye-bracket, inside the amenity stowage on the fore-and-aft diaphragm each side of the shelf. Secure each assembly with a washer and bolt.

(c) Position the ditching line eye-bracket; secure it to the stub bulkhead post with two bolts and a captive washer nut.

(10) From inside the amenity stowage, secure the stub bulkhead stowage shelves to the fore-and-aft diaphragm with washers and screws.

(11) Remove the blank cover from the air duct flexible hose and ensure that the hose is unobstructed. Position the louvre box and connect the flexible hose to the box; secure the hose with a cable tie.

(12) Position the louvre box in its housing and secure it with washers and bolts.

(13) Fit the louvre outlet; secure it with the quick-release fastener.

E. Conclusion

(1) Reset the circuit breakers previously tripped.

(2) Test the passenger cabin machmeter in accordance with 34-11-27, Removal/Installation).

(3) Close all amenity stowage and stub bulkhead doors, ensuring that each door is retained satisfactorily in position by its catch.

WARDROBES - DESCRIPTION AND OPERATION

1. DESCRIPTION

A. The wardrobes are situated at the left and righthand side of the front of each passenger cabin.

B. Attachment is via four seat rail fittings that locate in the existing seat rails.

C. The basic unit is constructed from lightweight sandwich panels of glass fibre skins and Nomex honeycomb core. The panels are assembled using aluminium extrusions and folded sections.

D. The wardrobe interior is illuminated and has two coat rails and space for hand baggage. The wardrobe contents are screened from passenger view by double doors. Power for the wardrobe lights is derived from the adjacent reading light system.

E. The wardrobe unit also houses the Passenger Flight Information Display (PFIDS) plasma display, and provides two fold down tables and a magazine rack.

F. The interior of the wardrobe has a white painted finish. The exterior face of the inboard panel has a grey tedlar finish. The exterior face of the aft bulkhead is finished with longitudinal grey leather pads.

G. Righthand wardrobes also house the Floor Proximity Lighting Control Modules.

2. OPERATION

A. To gain access to the wardrobe contents rotate the handle on the right hand double doors. Both magnetic catches and door clips are provided to retain the doors in the open position.

B. The interior of the wardrobe is illuminated automatically when the right hand door is opened. The light may be turned off by extending the microswitch button.

C. The tables may be lowered by pressing pushbutton on the facia panel. Unfold the leaves and slide into position. To return the table to the stowed position, align two arrows on each table and fold table leaves over. Catch will automatically engage when table is returned to the stowed position.

FORWARD AND AFT CABIN WARDROBES TROUBLE SHOOTING

1. General

A. Some troubles which may in certain circumstances arise are listed below with their probable causes.

B. Defective items must be repaired by authorized workshops or be exchanged for serviceable items. Care should be taken that only original parts are used.

C. Special tools or equipment are not required.

2. List of Possible Troubles

TROUBLE	PROBABLE CAUSE	CORRECTION
A. Table		
(1) Table does not operate	(a) Lever(s) is/are bent	Replace Lever(s)
(2) Latch does not operate	(a) Spring is broken	Replace spring
	(b) Broken parts in Latch	Replace Latch
B. Roller blind		
(1) Roller blind folds up too slowly or quickly	(a) Tension of spring is too weak or too strong	Adjust spring tension
(2) Roller blind does not return in opened position	(a) Spring is broken	Replace spring
	(b) Spring pins are broken	Replace spring pins

Table 101

WARDROBE - MAINTENANCE PRACTICES

1. Fold Down Table

A. Adjustment

(1) The Fold Down table is adjusted for level, flush fitting in the stowed position and catch engagement.

(a) The level adjustment is achieved by adjusting the screw and locknut on the stop block. The stop blocks are fitted to the single pivot bracket on the outside of each table pair.

(b) Flush fitting in the stowed position is achieved by radial adjustment of the table stop to set the correct gap.

(c) Adjustment of the catch engagement is achieved by installing or removing packing, Pt. No. 20-10-10061 between the catch plate and the wardrobe structure.

B. Removal/Installation

(1) Extension Table - Removal

(a) Unfold the table from the stowed position.

(b) Remove the plug and pivot tube from extension table pivot.

(c) Remove extension table.

(2) Extension Table Installation

(a) Installation is the reverse of removal.

(3) Table Base Removal

(a) If necessary remove Extension Table.

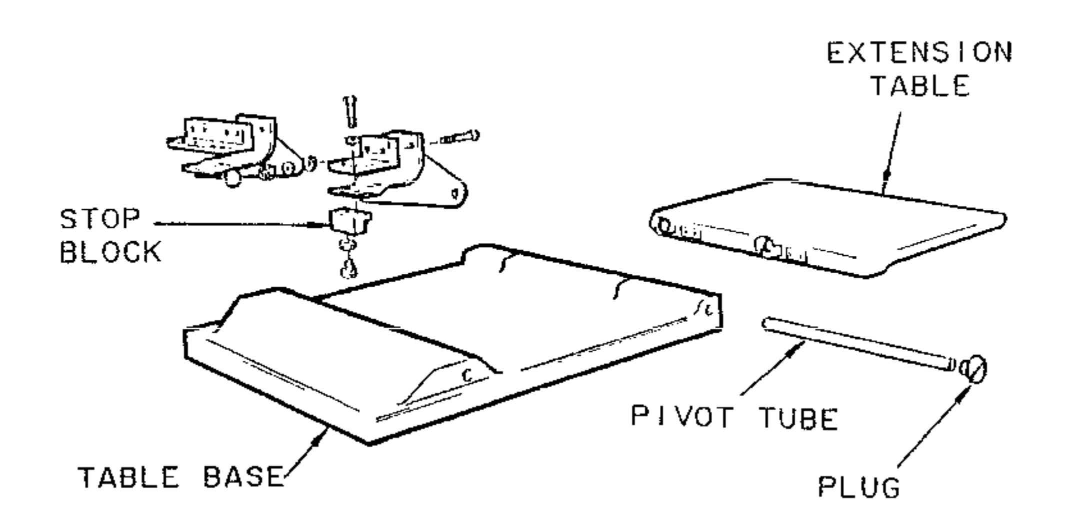
(b) Support Table Base, remove bolts securing centre support bracket.

(c) Remove centre support bracket.

(d) Disengage Table Base from outside support bracket.

(e) Remove bolts securing the outside support brackets.

CIC0491/00A



Fold Down Table Assembly
Figure 201

(4) Table Base Installation

(a) Install centre support brackets.

(b) Locate the support bracket spigot into the table base. Support the Table Base.

(c) Install the outside support bracket, taking care to locate the spigot into the table.

(d) Install the Extension Table if previously removed.

(e) Adjust the table for level in the open position and flush fitting in the stowed position.

(f) Check operation of the catch is satisfactory.

WARDROBE UNIT - FORWARD AND MIDSHIPS - REMOVAL/INSTALLATION

1. REMOVAL AND INSTALLATION

A. GENERAL

(1) These instructions cover the removal and installation of the two forward wardrobes and the two midships wardrobes. The units must be disassembled to allow removal from the aircraft.

(2) All screws and bolts requiring removal during disassembly have red painted heads to assist in their identification.

(3) It is assumed that the adjacent overhead stowage bin has been removed and that the curtain, curtain rail and pelmet have previously been removed.

(4) If it is necessary to remove the floor fittings the position should be marked on the seat rail to ensure correct positioning of the wardrobe on refitting.

B. REMOVAL

WARNING: OBSERVE THE ELECTRICAL PRECAUTIONS LISTED IN 24-00-00.

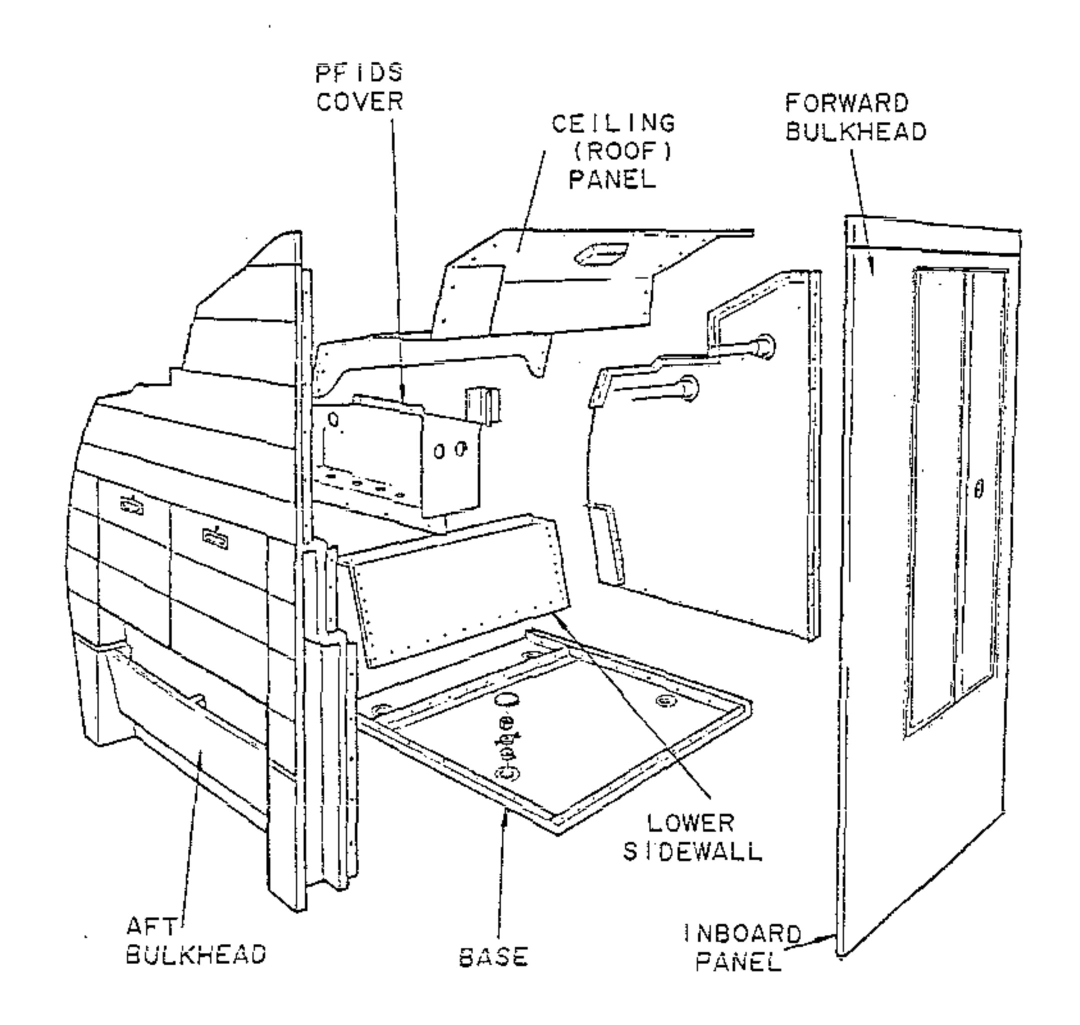
(1) Remove the two coat rails from the wardrobe.

(2) Open the circuit breakers listed in table 401.

WARDROBE	CIRCUIT BREAKER	PANEL
ALL	F117 INV/CONT	15-216
	F260 INV/CONT	13-216
LH FWD	L890 READING LIGHT FWD LEFT	1-221
	F286 PLASMA PANEL - 3	15-215
RH FWD	L889 READING LIGHT FWD RIGHT	1-221
	F226 PLASMA PANEL - 1	15-215
LH MID	L897 READING LIGHT AFT LEFT	1-241
	F269 PLASMA PANEL - 4	15-215
RH MID	L894 READING LIGHT AFT RIGHT	1-241
	F267 PLASMA PANEL 2	15-215

TABLE 401

CIC0491/01A



Wardrobe Assembly
Figure 401

(3) Attach "Do Not Close" identifier or similar warning tag to circuit breakers opened in step (2).

(4) Ensure the pilots Emerg Light switch on the overhead panel is positioned to OFF, attach warning tag.

(5) Disconnect cable at terminal block above wardrobe doors.

(6) Disconnect and remove Floor Proximity Lighting Control Module (right-hand wardrobes only).

(7) Remove the leather furnishing panels and display lenses from the rear bulkhead.

(8) Remove cover over PFIDS cooling air supply duct, remove the duct. Remove cover over PFIDS display.

(9) Disconnect and remove the PFIDS plasma display, bag and stow the connector.

(10) Remove the roof panel and lower sidewall panel.

(11) Remove the covers, nuts, and tab washers from the floor fixings. Remove the spacers from inboard floor fixings.

(12) Lift the wardrobe from the floor fixings and place in the aircraft aisle.

CAUTION: SUPPORT THE FORWARD AND AFT BULKHEADS TO PREVENT DAMAGE WHILE FRONT PANEL IS REMOVED.

(13) Remove the inboard panel complete with the doors, from the base and forward and aft bulkheads.

(14) Remove the forward and aft bulkheads from the base.

C. INSTALLATION

(1) Ensure the circuit breakers listed in table 401 are opened and the pilots Emerg Light Switch is positioned to "OFF".

(2) Position the base in the aircraft aisle in the correct orientation.

(3) Assemble the forward and aft bulkheads on to the base.

CAUTION: SUPPORT THE FORWARD AND AFT BULKHEADS UNTIL THE FRONT PANEL IS IN POSITION.

NOTE: The aft bulkhead should be without the furnishing panels, PFIDS plasma display, or the PFIDS lenses. All screws used to assemble the wardrobe should have the heads painted red to aid identification.

(4) Locate and secure the Inboard panel to the base, front and aft bulkheads. The inboard panel should be complete with doors, catches and microswitch.

(5) Lift the wardrobe on to the floor fixings.

(6) Secure the wardrobes to the floor fixings with spacers (inboard fixings only), tab washers and nuts. Fit cover to inboard fixings.

(7) Install roof and lower sidewall panel.

(8) Install and connect the PFIDS plasma panel.

(9) Fit the PFIDS display cover, cooling air duct and cover.

(10) Make electrical connection at terminal block(s) above wardrobe doors.

(11) For righthand wardrobes only:

(a) Ensure DC Essential Power is and will remain available.

(b) Install and connect Floor Proximity Lighting Control Module, ensure antenna is vertical and lock with P-clip (Ref. 33-52-10 Page Block 410).

(c) Operate the Pilots Emerg Light Control switch to "ARM" pause at least one second, return switch to "OFF".

CAUTION: DC ESSENTIAL POWER MUST REMAIN AVAILABLE FOR AT LEAST 15 SECONDS AFTER SETTING SWITCH TO "OFF".

(d) Carry out Floor Proximity "OFF TEST" procedure, Ref. 33-52-00 Page Block 501.

(12) Install the two coat rails.

(13) Fit leather furnishing panels and PFIDS display lenses to the aft bulkhead.

(14) If appropriate, install the overhead stowage bin.

(15) Reset circuit breakers previously opened.

(16) Check the operation of the PFIDS Display and wardrobe lighting. Wardrobe light should come on automatically when wardrobe doors are opened.

(17) If appropriate refit pelmet, curtain rail and curtain.

WARDROBES - INSPECTION/CHECK

1. Special Equipment

   A. None is required.

2. Inspection - check wardrobe for:-

   A. External damage.

   B. Deformation.

   C. Scratches on decorative finishes.

   D. Operation of doors and wardrobe light.

   E. Operation and attachment of table and catches.

   F. Cracks, deformation or corrosion of the floor attachment fittings.

   G. Loose panels, screws, and inserts.

   H. Condition of metal parts including coat rails.

WARDROBES - CLEANING

1. Cleaning

A. Clean all parts with a damp cloth, using soapy water if necessary.

B. Dry all parts thoroughly with a clean dry cloth.

CAUTION: DO NOT USE ANY ABRASIVE CLEANERS.

WARDROBE - REPAIRS

1. Repair or replace any component found damaged, worn, corroded or otherwise rejected during inspection.

2. Small dents and scratches in the panels and bulkheads may be filled with filler Part Number EC3524 A/B.

3. Any corroded part should be cleaned thoroughly and treated with anti corrosive paint where appropriate.

PASSENGER SEAT UNITS - DESCRIPTION AND OPERATION

RB * * PRE MOD. 25F260

RB 1. Description (Ref. Fig. 001)

RB A. General

RB (1) The 2000/2050 Series Double Seat Units are designed to
B offer maximum comfort and seat width combined with a
B pleasant appearance built into a simple but robust
B construction. The seats are furnished in a smart
B effective colour scheme to enhance the completed
B installation throughout the aircraft.

RB (2) The main seat structure is manufactured from light
B alloy materials and consists of two backrests pivoted
B between side and intermediate members which are
B connected by two tubular spars. This whole assembly
B rests on box section legs attached to the aircraft
B seat rails by quick release fittings. These fittings
B allow the complete seat to be moved forward and aft in
B the seat rails and locked in position by plungers or
B 'shear pegs'. By operating this mechanism and moving
B the seat 1/2" in the rails, the seat may be removed
B from the aircraft.

RB (3) In Flight Entertainment Control Units (I.F.E.) are
B installed in the centre arm. Side arm assemblies
B house the recline control button and ash box for each
B seat. The ash box can be removed for cleaning by
B opening the lid, hooking a finger under the stubber
B and lifting from the arm. The seat backrest may be
B set at any angle between an initial upright position
B and the fully reclined position. This movement is
B controlled by the button in each side arm.

RB (4) A folding table is stowed in the rear face of each
B backrest. These tables are mounted on legs which
B pivot within each backrest assembly. Magazine pockets
B are also provided on the rear face of the backrest,
B and are located below the folding table.

RB (5) The seating arrangement is initially obtained by two
B diaphragms sprung between the spars, and side and
B intermediate members. Then finally, removable shaped
B foam seat cushions, backrest squabs with fabric covers
B are secured by 'Velcro' strip.

(6) Provision is made for the stowage of lifejackets and blankets in pockets beneath each seat. Seat belts are secured in four places along the length of the seat structure just forward of the rear spar. A baggage bar restraining passenger hand luggage on the floor under the seat in front is attached to the base structure.

(7) To absorb forward movement of the passenger in the event of a sudden impact, a breakover facility against friction is provided. The friction is obtained from a clutch in the back structure upright members.

B. Passenger Seats - Type Identification

(1) In order to withstand excessive emergency loads the passenger seats in the forward cabin have been designed differently from the seats fitted in the aft cabin.

(2) To enable immediate identification of the two seat types the understructures are manufactured in different styles. Forward cabin (2050) are boxed - in assemblies. Rear cabin (2000) have distinctive front and rear legs ie. skeleton structure.

(3) Under no circumstances must type 2000 seat units be fitted in any position in the forward cabin.

C. Structure

(1) The seat structure is generally of aluminium alloy. It consists of pressed side members for each seat interconnected by front and rear transverse tubular spars. Another pressed transverse member is secured to the forward end of the side members to support the seat cushions. Extensions of the side members rearward also carry each pivoted backrest.

(2) There are two curved legs, on the same pivot as the backrest, for supporting a folding table on the back of each seat.

(3) Box-section legs, secured to the front and rear tubular spars, support the seat unit, and incorporate fittings at the foot of the legs to permit quick engagement with the seat rails. On each front leg, the fitting is a simple circular, shouldered spigot, which can enter the seat rail and, by moving the seat unit forward or rearward, the spigot is engaged by the seat rail flanges. On each rear leg, the fitting has

two spigots, and also houses a locking plunger which, when the unit is installed in the aircraft, enters the seat rail to prevent fore-and-aft movement of the unit. The locking plunger is pushed into engagement with the seat rail where it is retained by a spring-loaded 'pip' in the plunger housing. The fitting also incorporates an anti-rattle device, which is adjusted during seat unit installation to contact the seat rail thereby eliminating vertical movement of the seat units.

R (4) Beneath the seat a baggage rail, secured to the seat side members, prevents hand baggage, placed under the seat, from sliding forward on the floor during high forward 'G' conditions.

R (5) Anchorage points for the safety straps consist of swinging links secured to the seat side members just forward of the rear spar.

RB D. Furnishings

RB (1) The upholstery of the seat is a combination of high
B quality leather and light weight wool fabric with
B moulded polyurethane sculptured armrests.

RB (2) Seat cushion suspension is a fabric diaphragm
B tensioned across the base frame side members and
B secured with machine screws.

RB (3) All covers and cushions are secured to seat frame by
B self interlocking tape.

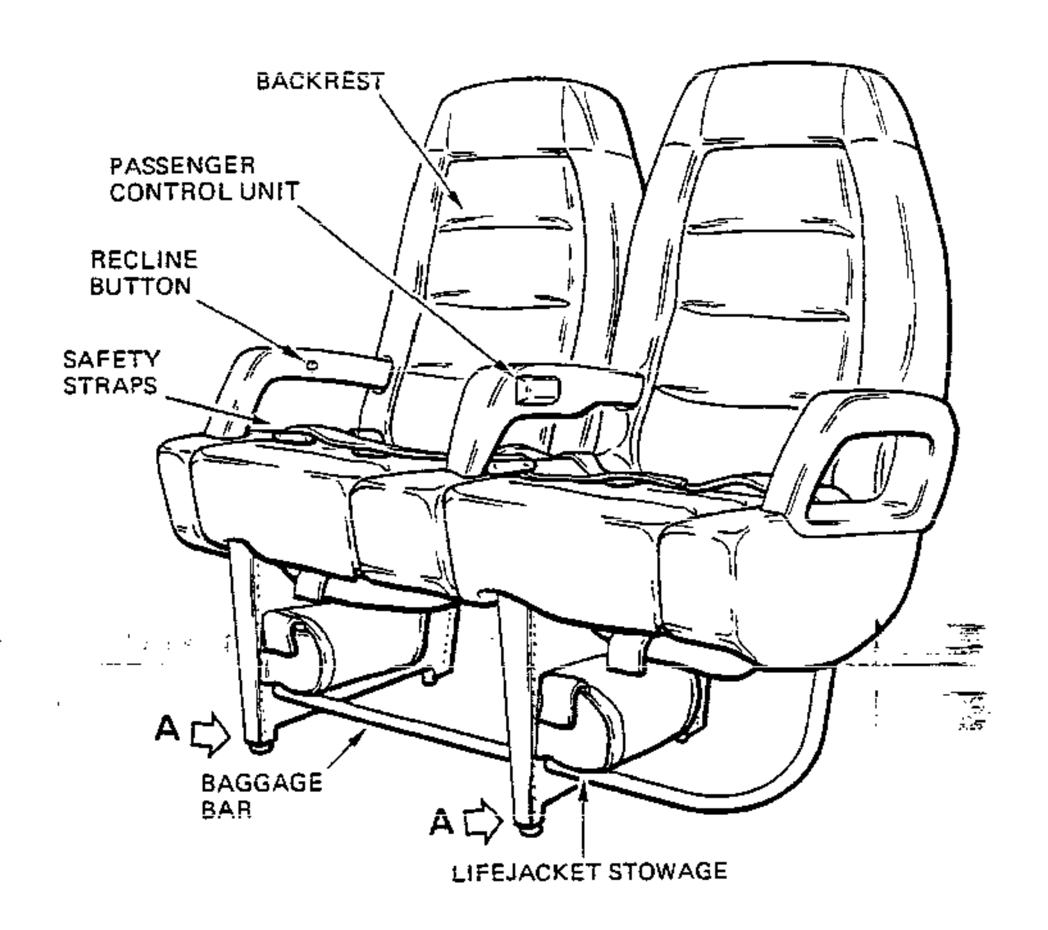
R (4) At the rear of the unit, the furnishings for each seat include a folding table retained in the closed position by a release catch on the upper part of the backrest. A magazine pocket is located below the folding table.

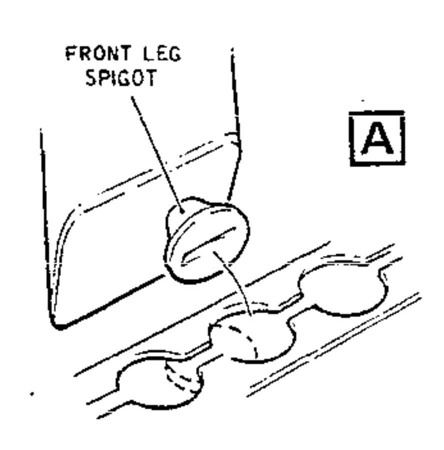
R (5) Beneath the seats there are pockets for stowing two life jackets.

RB E. Seat Reclining Mechanism

RB (1) A self contained hydraulic actuator mounted in the
B centre upright structures of the backrest and operated
B by the seat recline button enabling the passenger to
B recline the backrest to suit his requirement. In the
B event of failure the actuator is fitted with a lockout
B device which locks the backrest in an upright

CIC 0131/00A





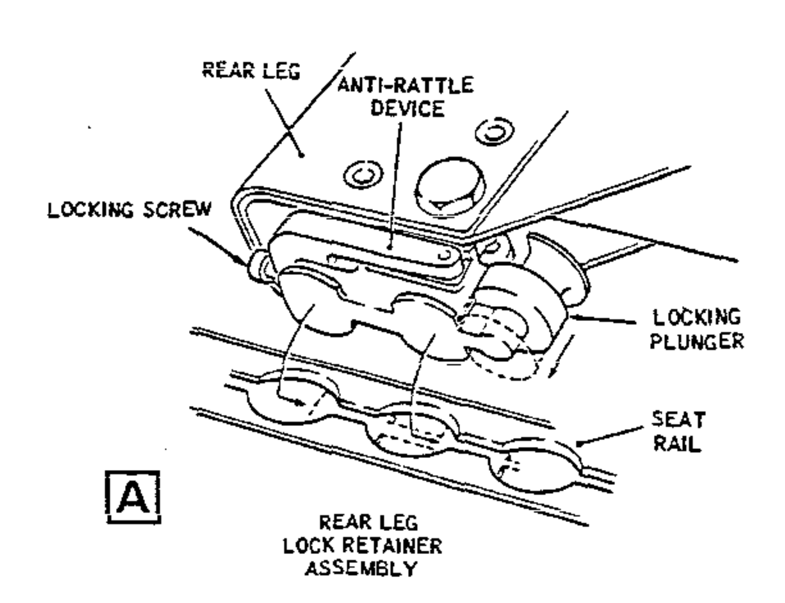
Passenger Seat Unit (Sheet 1 of 2)
Figure 001

B

PRINTED IN ENGLAND

CIC 0132/00A

TABLE RELEASE CATCH
CUP RECESS
ASHTRAY
FOLDING TABLE
TABLE LEGS
DADO PANEL
PASSENGER ENTERTAINMENTS SYSTEM ELECTRICAL CONNECTION
A
A
MAGAZINE POCKET



Passenger Seat Unit (Sheet 2 of 2)
Figure 001

B

RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB
RB

Double seat assembly
Figure 002

B position. Removal of the small fairing at the rear of the seat backrest (3 dome head socket screws) reveals the hydrolok jack. By pushing in an upward direction the glass/perspex cover, turning at the same time in a clockwise direction, the lockout position will be reached. Replace fairing.

R F. Passenger Control Unit (PCU)

R (1) A control unit is located in the centre armrest for the use of the seat occupant. Each PCU is connected to an electrical harness which is routed inside the seat unit and secured by straps to the rear spar. From the region of the rear spar, nearest the passenger compartment sidewall, the harness is routed through the seat furnishings and strapped to the seat unit rear leg across bracing strut. A multi-pin electrical plug at the end of the harness is connected to a passenger entertainment electrical receptacle located within the passenger compartment dado panels.

R (2) Finger-tip rotary controls and indicators for channel and volume selection are incorporated in each PCU to provide the occupant with individual selection of five stereo programmes as transmitted by the passenger entertainments system. Receptacles to receive headphone jack are located at the forward end of the PCU.

RB * * POST MOD. 25F260

RB 1. Description (Ref. Fig. 002)

RB A. The M11000 seat assemblies are essentially modular in construction. They consist of an aluminium seat frame and leg assemblies with seat pan and upholstery, upholstered seat back assemblies, stowable table assemblies, a moveable centre armrest and life vest containers.

RB B. The seat back assembly is equipped with a table assembly which can be folded for stowage into a recess. The tray table is supported by moveable support arms pivoting with the seat back. A magazine pocket is provided beneath the tray table assembly.

RB C. Each seat is provided with an ashtray, PCU, and a recline control push button, mounted on the armrest.

RB D. The seat back assemblies have adjustable recline to an angle of 9°. They can be folded forward 40°.

RB E. The seat assemblies are attached to the cabin floor by means of a track fitting in the rear leg and a stud in the front leg. A quick detach feature permits fore and aft movement of the seat in the floor tracks or complete removal.

RB F. Seat M11201-001-004 has provision for aisle side lights in the fairing between the floor and the armrest.

RB * * PRE MOD. 25F260

RB 2. Operation (Ref. Fig. 001)

RB A. Depression of the seat recline control button installed on the inner face of each side arm assembly, and application of pressure on the squab moves the backrest. Releasing the control button locks the seat backrest in the selected position.

RB B. To reduce the amount of recline required the control button is depressed. Thereupon the backrest will move forward until stopped by the release of the control button, or, the upright position is attained.

RB C. An override facility enabling cabin staff to push the seat backrests to the upright position is incorporated in the recline mechanism.

R D. Finger-tip controls in the armrest control unit can be operated in the normal manner to provide channel selection and volume control for the passenger entertainment system stereo output which is received by headphones when they are plugged in to the control unit. Indication of channel selection and volume is shown on the visual indicators immediately above the controls.

RB * * POST MOD. 25F260

RB 2. Operation (Ref. Fig. 002)

RB A. Reclining seat back assembly

RB (1) Back assemblies may be moved from the upright position to any intermediate or full recline position by pressing the recline control button while applying pressure aft on the seat back assembly.

RB (2) To return a reclined seat back to the upright position, press the recline control button while removing all pressure from the seat back assembly. The seat back will return to the upright position or any intermediate position by means of the damper assembly.

RB B. Centre armrest

RB (1) To lower the centre armrest, pull the end arm catch
RB away from the seat and push the arm down into its
RB recess in the seat cushion. To raise the armrest lift
RB until it "clicks" into the top position.

RB * * PRE MOD. 25F260

RB PASSENGER SEATS - TROUBLE SHOOTING

B A. Check Seat Recline Mechanism

B (1) Backrest should recline when the control button is
B depressed and stop at intermediate positions when
B button is released.

B B. Table

B (1) Tables should unfold freely for passenger service.

B (2) When in operation, tables should be free from backrest
B movement.

B (3) Table latch should engage properly.

B C. Miscellaneous

B (1) Check security of seat belts.

B (2) Check that ash box lid moves freely.

B (3) Check condition of floor location studs.

B (4) Check condition of Velcro strips securing seat cushion
B and back squab, covers and magazine pocket cloth
B insert.

B (5) Check tension of seat diaphragms.

Trouble	Probable Cause	Correction
D. Backrest		
(1) Backrest recline fails to operate	(a) Transmission cable broken or nipples at each end detached from mating slot.	(a) Replace transmission complete or engage nipples back into slots. Adjust outer sleeve at hydroloc end and remove excessive play in the line.
	(b) Excess clearance between actuator plunger and cable line head.	(b) Remove transmission head from actuator and check operation. Reassemble and check mating of locating groove in actuator.
(2) Backrest recline not locking at end of travel.	(a) Constant pressure on actuator valve.	(a) Location of the cable line head on actuator incorrect. See above.
	(b) Actuator unserviceable	(b) Replace actuator
	(c) Faulty cable transmission line and operating button.	(c) Replace complete assembly.
(3) Backrest can be moved backwards and forwards with no resistance from actuator.	(a) Actuator unserviceable.	(a) Replace actuator.

B

Trouble	Probable Cause	Correction
E. Seat Unit		
(1) Seat Unit stiff to engage in rail.	(a) Edges of slots and holes in aircraft floor rail burred or damaged.	The extent to which removal of burrs and blending out of any damage may be carried out will be given in the appropriate manual - Chapter 53 Sub-section 40.
	(b) Dirt or foreign matter in rail	Clean rail with dry cloth or stiff brush
	(c) Damaged floor studs and/or housings	Replace damaged components.
(2) Seat jammed in rails.	(a) Damaged slots and/or holes in floor rail.	Blend out damage
	(b) Damaged floor studs and/or housings.	Remove seat from fixings by removing nuts and bolts securing the rear foot fittings to the seat legs. Clean Check studs by using stud checking gauge. Studs must be re-placed if any portion of stud on radial check passes through checking gauge.
	(c) Dirt in rails	Brush out dirt using a dry stiff brush

PRINTED IN ENGLAND

B

* * POST MOD. 25F260

PASSENGER SEATS - TROUBLE SHOOTING

1. Test Procedure

A. Breakover Test

(1) Apply 30 lbs (14 Kg) pressure in the forward direction to the top of the seat back.

(2) The seat back should remain in the upright position until this pressure is reached.

(3) If breakover occurs at a pressure below the minimum specified, tighten the bolt tensioning the damper plate. If breakover does not occur at the maximum pressure specified above, loosen the bolt.

B. Table operation test and alignment procedure.

(1) Rotate the table latch until the table is released and drops into position.

(2) Levelling of the table at 25.5 inches (65 mm) can be accomplished with set screws on table stop shafts and screws within the table legs.

2. Fault Isolation

NOTE: Refer to the applicable IPL figure and item number shown in brackets.

Trouble	Probable Cause	Corrective Action
Recline control button will not move or fails to unlock backrest	Control assembly is detached from backrest	Attach control firmly in place and tighten setscrew
	Control button on arm is stuck	Replace control assembly
	Defective control assembly	Replace control assembly
	Bolt (attaching damper to damper plate) too tight	Loosen bolt

Fault Isolation
Table 101 (Sheet 1 of 2)

Trouble	Probable Cause	Corrective Action
Backrest fails to lock or recover when recline control button is pressed	Defective control assembly	Replace control assembly
	Broken or damaged damper assembly	Replace damper
	Bolt (attaching damper to damper plate) too tight	Loosen bolt
Seat back fails to breakover or folds forward at light push	Breakover mechanism improp-erly adjusted	Tighten or loosen bolt
	Breakover mechanism damaged	Replace damper plate. Check and adjust breakover mechanism correctly
Table not horizontal or at the wrong height	Improperly adjusted	Correct adjustment with setscrews
Seat assembly loose in floor tracks	Studs in front legs extend too far	Adjust studs by screwing into leg
	Stud (front leg) damaged	Replace stud
	Broken shear pin in track fitting	Replace track fitting
	Nut on front leg stud not installed	Install new nut
	Track fitting on rear leg improperly locked to floor track	Disengage and lock track fitting. If seat will not remain secure replace track fitting
Seat cannot be removed from tracks	Track fitting on rear leg damaged	Replace track fitting

Fault Isolation
Table 101 (Sheet 2 of 2)

PASSENGER SEAT UNITS - REMOVAL/INSTALLATION

RB * * PRE MOD. 25F260

B WARNING: ENSURE THAT SEAT UNITS FITTED WITH STRENGTHENING ARE
B INSTALLED IN THE PASSENGER FORWARD COMPARTMENTS.
B SEAT UNITS WITHOUT MUST BE INSTALLED ONLY IN THE
B PASSENGER REAR COMPARTMENT.

RB * * ALL AIRCRAFT

1. General (Ref. Fig. 401)

The passenger seat unit, mounted on four box-section legs, is retained in the seat rails by a quick-release fitting at the base of each rear leg. Each quick-release fitting incorporates an anti-rattle device, and the release fittings, when operated, permits the seat to be moved forward or aft so that it can be disengaged from the seat rails.

B NOTE: When removing/installing or repositioning a passenger
B seat first establish if the seat/row is designated to be
B fitted with a floor aisle proximity light, refer to
B Chapter 33. Floor aisle proximity lights stay with the
B airplane, remove from offgoing seats and fit to ongoing
B seats.

2. Passenger Seat Units

A. Prepare

(1) Trip the following circuit breakers and fit safety clips:

SERVICE	PANEL	CIRCUIT BREAKERS	MAP REF
PASS ENT DC SUP	15-215	R332	G18
PASS ENT AC SUP	14-215	R333	B 4

(2) Remove the two life jackets beneath each seat unit.

(3) Remove the plastic capping strips, from fore and aft of the seat unit to the removed, covering the seat rails.

(4) Remove the passenger entertainments plug from its receptacle in the bottom of the sidewall furnishing panel.

B. Removal

(1) Unscrew the anti-rattle device locking screw on each

rear leg. Do not remove the locking screw.

R (2) Lift the locking plunger on each of the rear legs, simultaneously, and move the seat unit forward or aft 0.5 in (12.7 mm); lift the seat vertically to disengage the front and rear legs from the seat rails.

R (3) Hand tighten the anti-rattle device locking screw on each rear leg.

R C. Installation

<u>WARNING:</u> THE SEAT UNIT STRUCTURE IS COLOUR CODED TO FACILITATE UNIT IDENTIFICATION AND LOCATION AS FOLLOWS:

LIGHT BROWN - PASSENGER FORWARD COMPARTMENT
BLACK - PASSENGER REAR COMPARTMENT

(1) Comply with the electrical safety precautions.

(2) Unscrew the anti-rattle device locking screw on each rear leg. Do not remove the screw.

(3) Remove obstructions from the seat rails, and clean the rails with clean, lint free cloth. Ensure that the seat rails are undamaged.

(4) Position the passenger seat unit, on the seat rails to satisfy the required distance between seat units, so that the lugs on the two forward legs engage the seat rails.

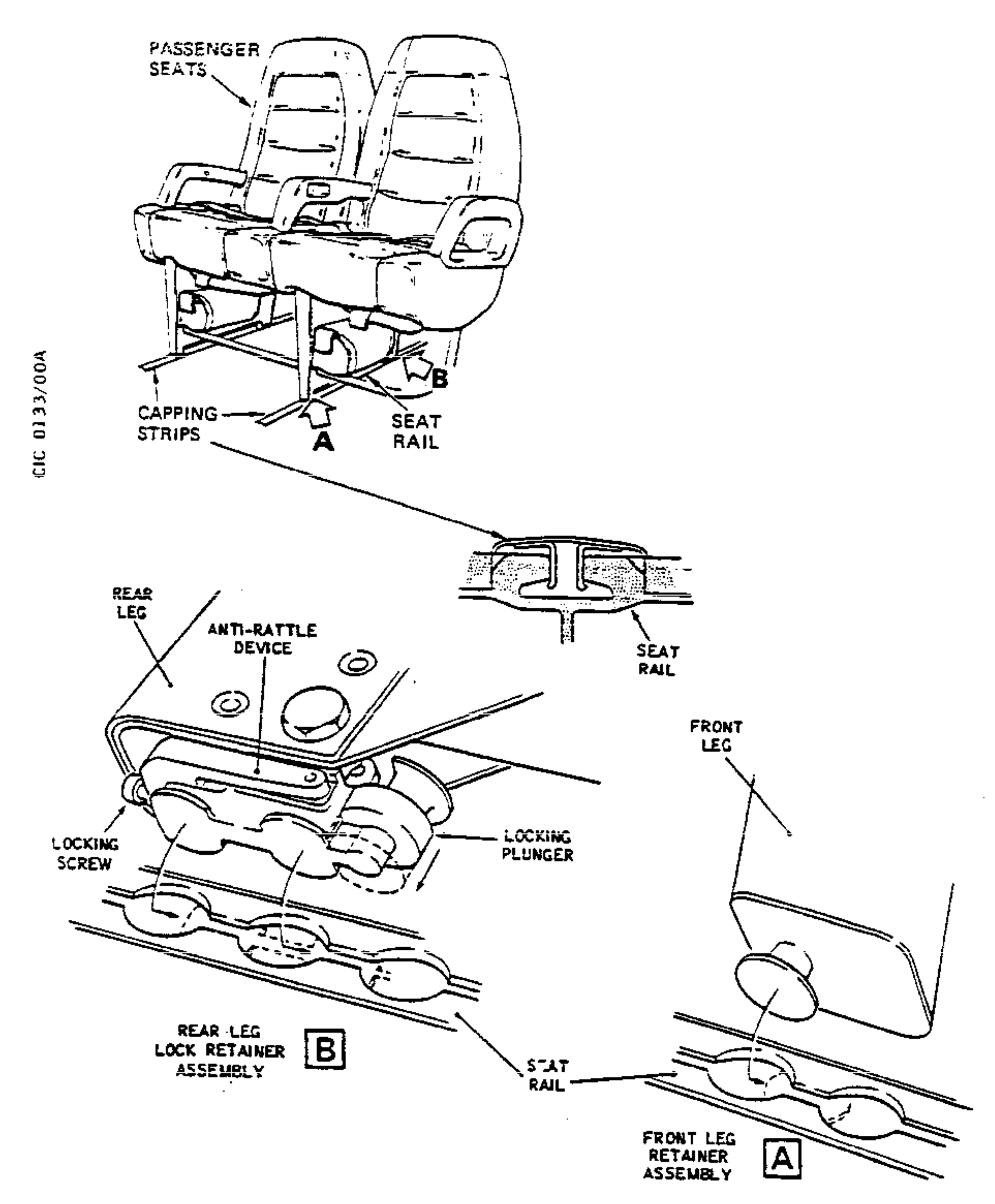
(5) Lift the locking plunger on each rear leg and engage the lugs on the rear legs with the seat rails. Move the seat either forward or aft 0.5 in (12.7 mm) and release the two plungers. Push each plunger into full engagement with the seat rail, ensuring that the plunger is retained by the spring-loaded 'pip' in the plunger housing.

R (6) Hand-tighten the locking screw on the anti-rattle device on each rear leg, so that the device contacts the seat rail.

(7) Visually inspect the passenger entertainments system electrical plug and receptacle for cleanliness and damage, and connect the plug to the receptacle.

(8) Fit the plastic capping strip, to both rails, fore and

RB * * PRE MOD. 25F260



Passenger Seat Units - Installation
Figure 401

RB * * POST MOD. 25F260

B
A
ATTACH BOLT
REAR TRACK FITTING
VIEW B
CLAMP PLATE
HOUSING
CLAMP NUT
FRONT LEG STUD
ATTACH BOLT
VIEW A

Passenger Seat Units - Installation
Figure 401

aft of the seat.

D. Conclusion

(1) Reset the circuit breakers previously tripped.

(2) Operationally test the passenger entertainments system (Ref. 23-32-00, Adjustment/Test).

(3) Stow a serviceable life jacket beneath each seat.

PASSENGER SEAT UNIT - ADJUSTMENT/TEST

* * PRE MOD. 25F260

1. Seat Reclining Mechanism

   A. Test Reclining Mechanism for Each Seat

      (1) Occupy the seat.

      (2) With the backrest in the upright position, apply gentle back pressure to the backrest then press the seat reclining button on the inner face of the outer armrest. Check that the backrest moves rearward under continually applied back pressure until the backrest reaches approximately mid-position, then release the button. Ensure that the backrest is locked.

      (3) Press the seat reclining button and move the backrest to the fully reclined position. Release the button.

      (4) Ease the back away from the backrest and press the seat reclining button until the seatback is at approximately mid-position then release the button. Ensure that the backrest is locked in new position.

      (5) Vacate the seat.

      (6) From the rear, push the seatback forward to the upright position and check that the seatback is locked automatically.

* * POST MOD. 25F260

2. Seat Back Alignment and Reclining Mechanism

   A. Test Alignment and Reclining Mechanism for Each Seat

      (1) Visually check alignment of installed seat backs.

      (2) Seat level is measured in upright back position from the upper edge of the seat back to the floor.

      (3) Adjust the position of the seat back assembly by loosening nuts and moving the damper in or out of the trunnion. With the seat back in the desired position, tighten nuts.

RB (4) Press recline control push button while applying a force of 4-8 lbs (2-4 Kg) to seat back. Seat back should move to the full recline position or stop at intermediate positions upon releasing the recline control button.

RB (5) With the seat back reclined, remove pressure from seat back while pressing the recline push button. Seat back should return to the upright position.

RB (6) If the seat back does not return to the desired level, adjustment can be made by lengthening or shortening the stroke of the damper. This is accomplished by pulling the cap on the damper body towards the recline arm to disengage the ears of the cap, and then rotating to the desired position. Releasing the cap "Locks" it in position.

PASSENGER SEAT UNIT - INSPECTION/CHECK

R B
R B
R B
R B
R B
R B

1. General

Each seat unit is secured to floor-mounted seat rails by quick-release fittings, and is electrically connected to the passenger entertainment system (Ref.23-32-00).

2. Inspection/Check

CAUTION: KEEP THE UPHOLSTERY CLEAN.

A. Preparation

(1) Lift the plastic capping strips from the seat rails in the vicinity of the seat unit attachments.

B. Inspection

(1) Visually inspect the seat unit, and the seat rails in the vicinity of the support leg quick-release fittings, for damage, cleanliness and security.

(2) Ensure that the locking plunger on each rear support leg is engaged fully with the seat rail.

R B (3) Ensure that the hydraulic actuator in each backrest
R B does not leak.

B (4) Inspect the seat belt snap hook anchorages for cracks,
B distortion, corrosion and ensure that mouth clips are
B secure.

B (5) Inspect the seat belt webbing for opening of weave,
B cuts, abrasions, security of sticking and cleanliness.

C. Check

(1) Attempt to rock the seat unit forward and rearward, and ensure that the anti-rattle device on each rear support leg is effective. Also check the security of the locking screw on the device.

(2) Check that the passenger entertainment system

electrical connection is secure, that the electrical harness is undamaged and that the harness is strapped securely to the leg bracing strut.

(3) Lift each seat cushion and check the security of the diaphragm. Replace the seat cushions.

(4) Check that the ash box in the outer armrest is clean and that the hinged lid closes fully.

(5) Check that, when the retaining catch is released, each folding table can move smoothly through its full range of movement. When the table is stowed ensure that it is retained with the catch.

(6) Check that a fully serviceable life jacket is stowed in each pocket under the seats.

(7) Connect the seat belt buckle, which should close with a CLICK, then unfasten by lifting the latch to approximately 120°. The lug should not disengage until at 90° approx.. If the spring loading of the latch appears weak compared with neighbouring belts, remove belt from aircraft. If the buckle fails to function, check for foreign bodies or visible distortion. If in doubt remove complete belt assy.

(8) Check seat belt adjustment by pulling loose end whilst holding buckle position. To release loose end, grip only the ribbed ends of adjuster bar protruding from edges of buckle and pull buckle away from the shortened strap.

D. Conclusion

(1) Press the plastic capping strip in the seat rails, ensuring that they fit tightly.

PASSENGER SEAT UNIT - CLEANING/PAINTING

1. CLEANING

NOTE: Equivalent substitutes may be used for listed items Carbon tetrachloride, Perchloroethylene, White spirit, Swarfega, obtainable from: Deb Chemical Proprietaries Limited
Belper, Derbyshire

Dunlop S758MG, Dunlop T559, Dunlop T160, obtainable from: Dunlop Chemical Products Division,
Chester Road Factory,
Erdington, Birmingham 24.

A. Metal Parts

(1) Clean all metal parts of the seat assembly with dry air blast. Remove grease or oil with lint free cloth dampened with carbon tetrachloride or suitable alternative.

B. Fabric Covers

(1) Clean all covers by dry cleaning using perchloroethylene or white spirit.

C. Plastic Mouldings

(1) Wash with warm water and good quality soap or detergent.

WARNING: ENSURE THAT ALTERNATIVE CLEANING FLUID WILL NOT DAMAGE PLASTIC MOULDINGS.

D. Leather Covers

(1) Clean leather occasionally with clean soft moist cloth using some soap if necessary.

(2) Rewipe with clean water and let dry, then polish with soft woollen cloth.

E. Surplus Adhesive

(1) Surplus adhesive (Dunlop S758MG) can be removed with very careful application of Dunlop T559 which is neutralised by use of Dunlop T160.

STEWARDS' SEAT - DESCRIPTION AND OPERATION

R **ON A/C 001-006,

1. General (Ref. Fig. 001)

Six stewards' seats are provided in the passenger compartment, positioned in the forward, intermediate and rear vestibules. The seats are all of similar construction, but their method of attachment to the support structure differ to suit the structure at the seat location.

2. Description (Ref. Fig. 001)

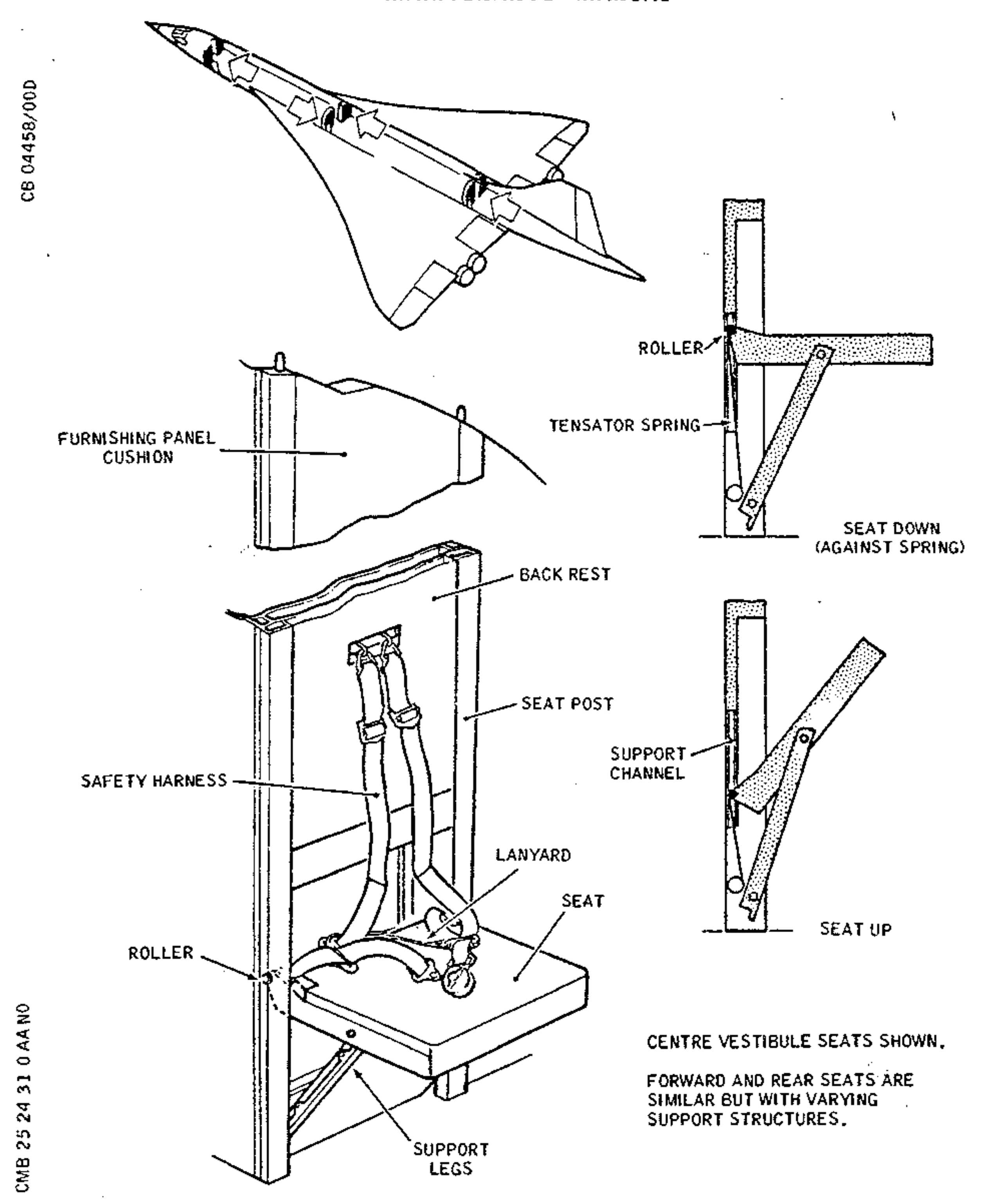
The seat assemblies consist of two seat posts which are joined together by horizontal struts and panels, and support a spring operated seat, back rest, safety harness fittings and furnishing panels. The posts of the forward left-hand, intermediate and rear seat assemblies are secured to fittings in the roof and floor of the passenger compartment. The forward right-hand seat assembly is secured to the rear face of the forward right-hand vestibule.

Each seat has a back rest, comprising synethetic foam material, covered with a decorative fabric. The back rest, together with other soft and rigid panels, fit between the vertical posts and form the remaining in-fill furnishing panels of the seat assembly. The soft furnishing panels and back rest and seat cushions are retained in position by self-attaching tape. A shoulder-type safety harness is secured to the structure at a central attachment point behind the back rest cushions and to the seat posts at each side of the seat pan. Two lanyards, one on the left-hand side and one on the right-hand side of the rear edge of the seat, are clipped to the harness to ensure that the harness is correctly positioned when the seat is stowed.

3. Operation

The seat is released from its vertical, flush fitting position, by pulling it outward and downward. The downward force on the seat overcomes the pull of two tensator springs, and tilts the seat to the horizontal position to rest on its support legs. The seat will remain in the horizontal position as long as sufficient weight is applied to the seat to overcome the pull of the tensator springs. When the weight is removed from the seat, the tensator springs return the seat to the stowed position. Simultaneously the two lanyards pull the lap strap of the safety harness rearward and to the centre of the seat to allow the seat to return flush with the seat posts.

R **ON A/C 001-006,



Typical Steward's Seat
Figure 001

STEWARDS SEATS - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

Stewards seats are provided in the forward, intermediate and rear vestibules. The seat assemblies consist of two seat posts joined by horizontal struts and panels which support a spring-operated folding seat, back-rests, safety harness fittings and furnishing panels.

The soft furnishing panels, back-rest and seat cushions are retained in position by hook and loop interlocking tapes. The forward vestibule left-hand seat and the intermediate vestibule seat assemblies are secured to roof fittings with spigots and to the floor with foot fittings.

R **ON A/C 001-006,

The forward vestibule right-hand seat assembly is secured to the aft face of the forward right-hand electronics rack with bolts.

The stewards seats in the rear vestibule form part of the cabin services stowage structure and are removed integrally with the structure .

2. Forward Vestibule Left-Hand Seat (Ref. Fig. 401)

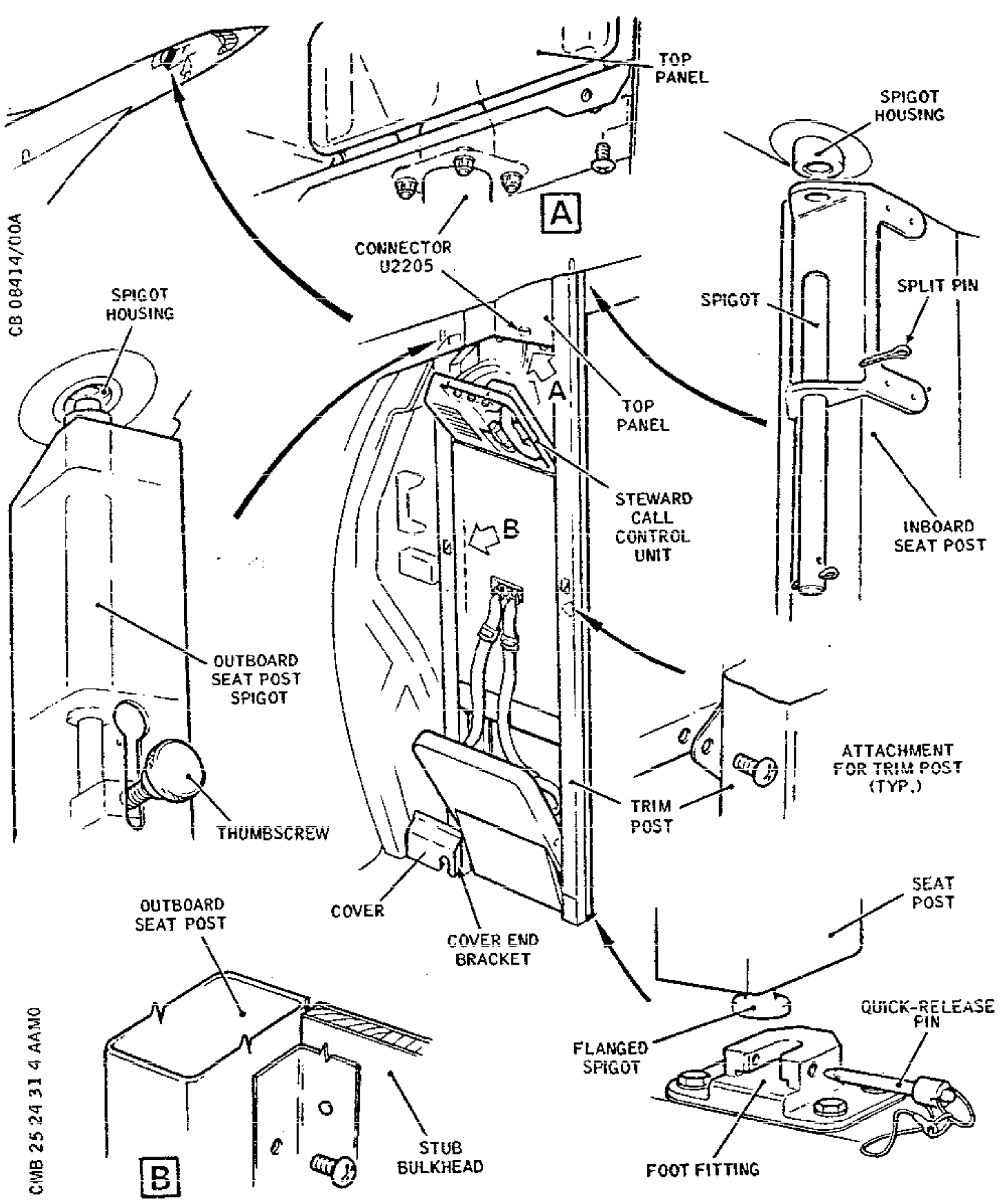
A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit Breaker safety clips	-
Wire, 0.028in (0.7mm) dia	-

B. Prepare

(1) Trip the PASS CALL SUP circuit breaker, M78 on panel 15-216, map ref. A22, and fit a safety clip.

(2) Remove No. 1 Galley (Ref.25-31-00, Removal/Installation).



Forward Vestibule Left-Hand
Seat - Installation
Figure 401

C. Remove Left-Hand Seat

(1) Release the quick-release fasteners and hinge down the stewards call control unit face panel.

(2) Remove the bolts securing the top panel to the top of the stewards call control unit. Remove the top panel and close the control unit panel. (Ref. Detail A).

(3) Disconnect the electrical connector U2205, at the top of the control unit box.

(4) Remove the seat back-rest by pulling it out to disengage the hook and loop interlocking tapes.

(5) Undo the screws and remove the trim post from each seat post.

(6) Remove the bolts and screws securing the slide/raft girt arm mechanism cover to the stub bulkhead and the floor angle. Remove the cover.

(7) Remove the screws securing the slide/raft girt arm mechanism cover end bracket to the outboard seat post. Remove the end bracket.

(8) From inside the galley aperture, remove the bolts securing the stub bulkhead to the outboard seat post (Ref. Detail B).

(9) Remove the quick-release pins securing the flanged spigots in the seat post to the foot fittings on the floor.

(10) Withdraw the spigots securing the top of the seat posts to the roof fittings:

(a) At the outboard seat post, remove the locking wire securing the thumbscrews to the seat post. Loosen the thumbscrew sufficiently to withdraw spigot from the spigot housing, and pull the thumbscrew downward to the end of the keyhole slot.

(b) At the inboard seat post, remove the upper of the two split pins at the bottom end of the spigot. Pull the spigot downward and withdraw it from the spigot housing.

(11) Move the seat assembly rearward to disengage the flanged spigots from their foot fittings. Remove the

seat assembly.

D. Install Left-Hand Seat

(1) Observe the electrical safety precautions.

(2) Ensure that each foot fitting and spigot housing is secure.

(3) Position the seat assembly so that the flanged spigots engage their foot fittings. Secure them with the quick-release pins.

(4) Align the spigot on the inboard seat post with the spigot housing. Push the spigot fully upward and secure it with a split pin inserted through the spigot above the bottom flange of the fitting.

(5) Align the spigot in the outboard seat post with the spigot housing. Push the spigot fully upward and tighten the thumbscrew, ensuring that the plain shank of the screw enters the larger part of the keyhole slot. Lock the thumbscrew to the seat post with 0.028 in (0.7mm) dia wire.

(6) From inside the galley aperture, secure the stub bulkhead to the outboard seat post with bolts (Ref. Detail B).

(7) Position the end bracket, for the slide/raft girt arm mechanism cover, at the foot of the outboard seat post. Secure the end bracket to the seat post with screws.

(8) Position the slide/raft girt arm mechanism cover and secure the cover to the stub bulkhead, floor angle and end bracket with bolts and screws.

(9) Ensure that the electrical parts are clean and undamaged, then connect the electrical connector U2205 to its receptacle on the stewards call control unit.

(10) Lower the face panel of the stewards call control unit. Position the top panel on top of the control unit box and secure the top panel with bolts. Close the face panel and secure the quick-release fasteners (Ref. Detail A).

(11) Position the trim post on each seat post and secure the assembly with screws.

(12) Refit the back-rest, pressing it firmly into position to engage the hook and loop interlocking tapes.

E. Conclusion

(1) Install No 1 Galley (Ref.25-31-00, Removal/Installation).

(2) Reset the circuit breaker previously tripped.

(3) Make available electrical ground power (Ref.24-41-00).

(4) Test the stewards call control unit (Ref.33-27-00, Adjustment/Test).

3. <u>Intermediate Vestibule Right-Hand Stewards Seat (Ref. Fig. 402)</u>

A. Preparation

(1) Remove the wall mirror inside No. 3 Toilet (Ref.25-41-12, Removal/Installation), and remove the counter-sunk-head bolt and washer securing the bulkhead to the outboard seat post.

(2) Open the water heater access door and remove the other countersunk-head bolt and washer securing the bulkhead to the outboard seat post.

B. Remove Right-Hand Seat

(1) Remove the seat top panel by pulling the panel outward to disengage the hook and loop interlocking tape fasteners.

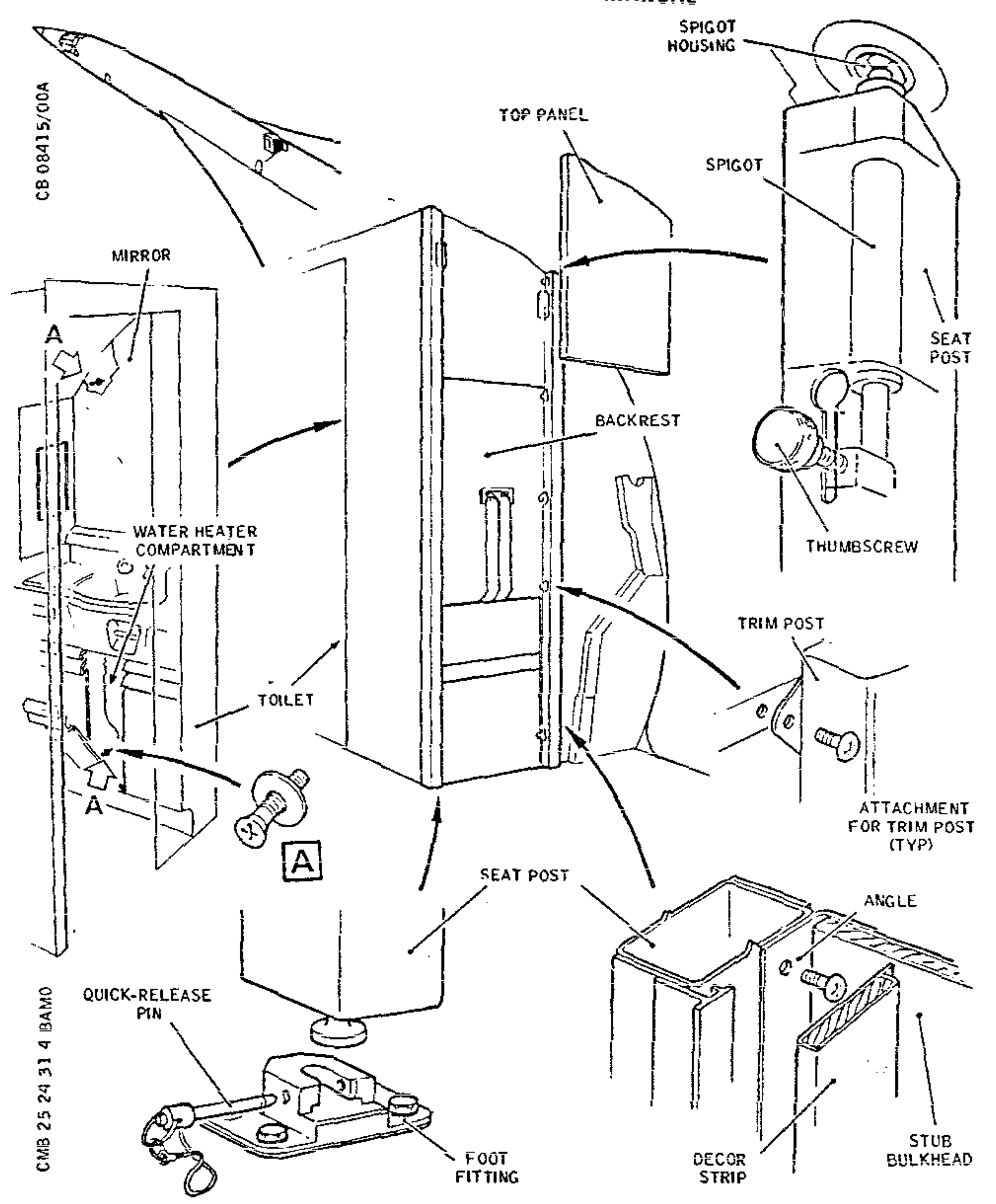
(2) Pull the seat back-rest outward to disengage the hook and loop interlocking tape fasteners.

(3) Undo the screws and remove the trim post from the inboard and outboard seat posts.

(4) Prise off the panel decor strip outboard of the out-board seat post, and remove the screws securing the stub bulkhead angle to the seat post.

(5) Remove the quick-release pins securing the flanged spigots in the seat posts to the foot fittings on the floor.

(6) Through the access holes in the seat structure, remove the wire securing each thumbscrew to the



Intermediate Vestibule Right-Hand
Seat - Installation
Figure 402

inboard and outboard seat post. Loosen the thumbscrew sufficiently to withdraw the spigot from the spigot housing and pull the thumbscrew downward to the end of the keyhole slot.

(7) Move the seat assembly away from the bulkhead to disengage the flanged spigots from their foot fittings. Remove the seat assembly.

C. Install Right-Hand Seat

(1) Ensure that each foot fitting and spigot housing is secure.

(2) Position the seat assembly so that the flanged spigots engage their foot fittings. Secure them with the quick-release pins.

(3) Align the spigots at the top of the seat posts with the spigot housings, push the spigots fully upward and tighten the thumbscrews, ensuring that the plain shank of each screw enters the larger part of the keyhole slot. Lock each thumbscrew to its seat post with 0.028 in (0.7mm) dia wire.

(4) Secure the stub bulkhead angle to the outboard seat post with screws. Fit the panel decor strip over the screws.

(5) Position a trim post on each seat post and secure the trim post with screws.

(6) Refit the seat back-rest and the seat top panel; press the back-rest firmly into position to engage the hook and loop interlocking tape fasteners.

(7) From inside the toilet compartment, secure the bulkhead to the outboard seat post with two washers and countersunk-head bolts.

C. Conclusion

(1) Close the water heater access door in the toilet cabinet.

(2) Refit the wall mirror (Ref.25-41-12, Removal/Installation).

4. Intermediate Vestibule Left-Hand Stewards Seat (Ref. Fig. 403)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Wire, 0.028 in (0.7mm) dia	-

B. Prepare to Remove Left-Hand Seat

(1) Trip the circuit breakers listed below and fit safety clips:

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
PASS CALL SUP	15-216	M78	A22
FASTEN S/BELTS SUP	1-213	W191	L 8
NO SMOKING SUP	1-213	W192	L 9
VESTIBULE & BOARDING LTS SUP	25-216	L692	C 1
CABIN NIGHT LTS SUP	5-213	L455	D19
FLT DECK ROOF LTS SUP	14-215	L232	C11

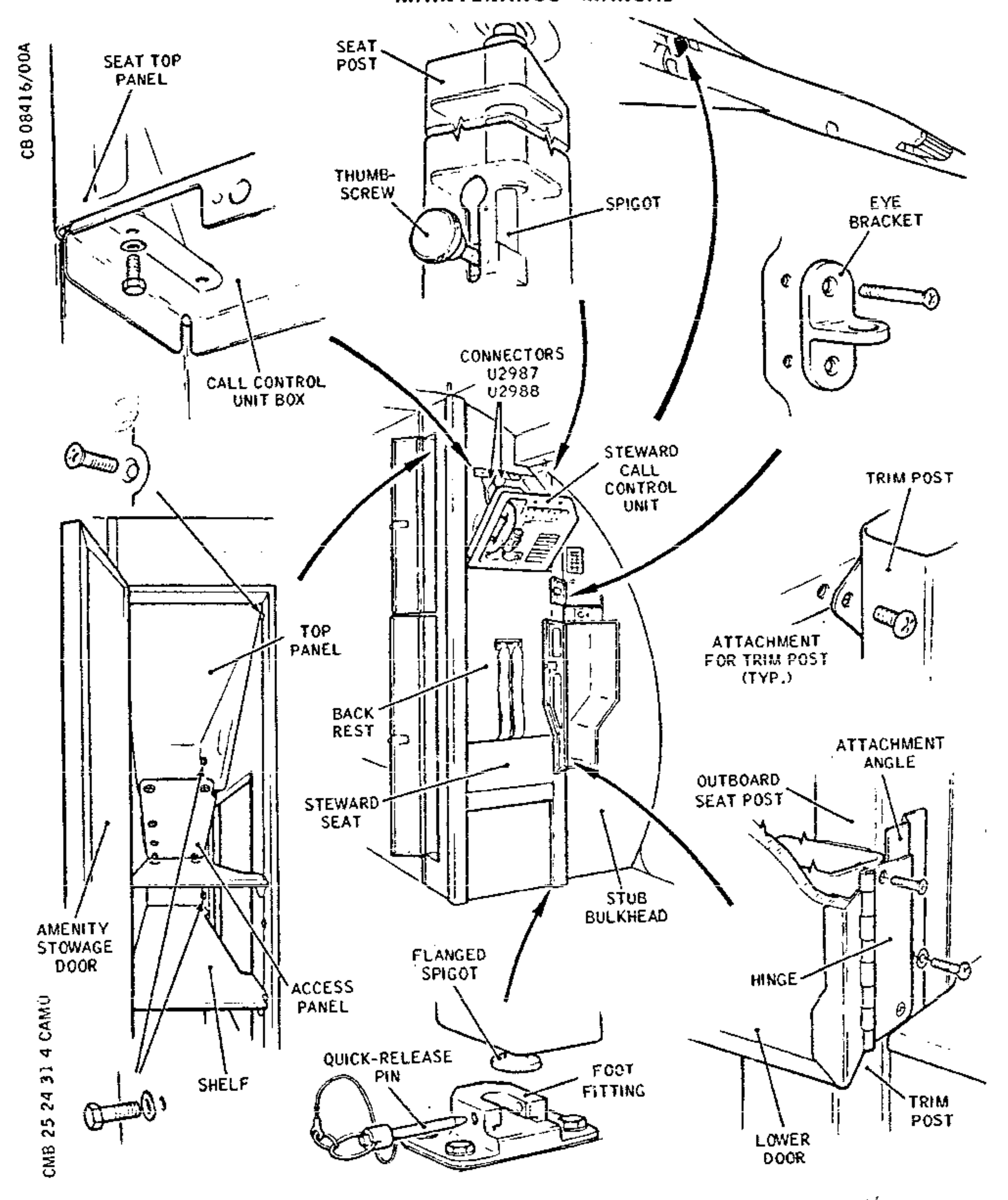
C. Remove Left-Hand Seat

(1) Release the quick-release fasteners and lower the face panel of the stewards call control unit on its hinges.

(2) Remove the bolts and washers securing the seat unit top panel to the top of the stewards call control unit box. Remove the top panel and close the control unit panel.

(3) Disconnect the electrical connectors U2987 and U2988 at the top of the call control unit box.

(4) Pull the seat back-rest outward to disengage the hook



Intermediate Vestibule Left-Hand Seat - Installation
Figure 403

and loop interlocking tape fasteners.

(5) Undo the screws and remove the trim post from the inboard seat post.

(6) Open the upper and lower stub bulkhead stowage doors. Remove the five screws in the hinge, nearest the hinge pin, attaching to the outboard post trim, and remove the eleven pan-head screws securing the attachment angle to the outboard seat post.

(7) Undo the screws and remove the trim post from the outboard seat post.

(8) Open the ditching line stowage panel and remove the two bolts securing the ditching line eye-bracket to the outboard seat post.

(9) Open the amenity stowage doors and from inside the stowage:

(a) Remove the seven countersunk-head bolts securing the amenity stowage to the inboard seat post.

(b) Remove the eight hexagon head bolts and washers securing the amenity stowage to the outboard seat post.

<u>NOTE</u>: To remove the top bolt it is necessary to remove the access panel in the top panel.

(10) Remove the quick-release pins securing the flanged spigots in the seat posts to the foot fittings on the floor.

(11) At the top of the seat posts, remove the wire securing each thumbscrew to the seat posts. Loosen the thumbscrew sufficiently to withdraw the spigot from the spigot housing, and pull the thumbscrew downward to the end of the keyhole slot.

(12) Move the lower part of the seat assembly away from the amenity stowage to disengage the flanged spigots from their foot fittings. Remove the seat assembly.

D. Install Left-Hand Seat

(1) Observe the electrical safety precautions.

(2) Ensure that each foot fitting and spigot housing is

secure.

(3) Position the seat assembly so that the flanged spigots engage their foot fittings. Secure them with quick-release pins.

(4) Align the spigots at the top of the seat posts with the spigot housings. Push the spigots fully upward and tighten the thumbscrews, ensure that the plain shank of each thumbscrew enters the larger part of the keyhole slot. Lock each thumbscrew to the seat post with 0.028 in (0.7mm) dia wire.

(5) From inside the amenity stowage; secure the stowage bulkhead to the outboard seat post with washers and hexagon-head bolts, and to the inboard seat post with countersunk head bolts refit the access panel.

(6) From inside the stub bulkhead stowage, secure the attachment angle to the outboard seatpost with eleven pan-head screws.

(7) Position the ditching line eye-bracket on the outboard seat post inside of the stowage and secure it with two bolts. Ensure that the ditching line is secured to the bracket.

(8) Position the trim post on the outboard seat post and secure it with screws. Secure the hinge of the upper and lower stub bulkhead doors to the outboard post trim with five screws.

(9) Position the trim post on the inboard seat post and secure it with screws.

(10) Connect the electrical connectors U2987 and U2988 at the top of the stewards call control box.

(11) Position the top panel on top of the stewards call control box and secure it with washers and bolts. Close the face panel and secure the quick-release fasteners.

(12) Refit the back-rest pressing it firmly into position to engage the hook and loop interlocking tapes.

D. Conclusion

(1) Reset the circuit breakers previously tripped.

(2) Make available electrical ground power as detailed in

24-41-00.

(3) Test the stewards control unit (Ref. 33-27-00, Adjustment/Test).

5. Rear Vestibule Stewards Seats

The stewards seats in the rear vestibule are integral with, and form part of the cabin services stowage. For their removal/installation refer to Chapter 25-23-16, Removal/ Installation, Cabin Services Stowage.

R **ON A/C 001-006,

6. Forward Vestibule Right-Hand Stewards Seat (Ref. Fig. 404)

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque spanner range 0.80 lbf in. (0-0.904 mdaN)	-

B. Remove Right-Hand Seat

(1) Switch off and disconnect electrical ground power from the aircraft. Display a suitable warning notice.

NOTE: A hand torch may be required to provide illumination.

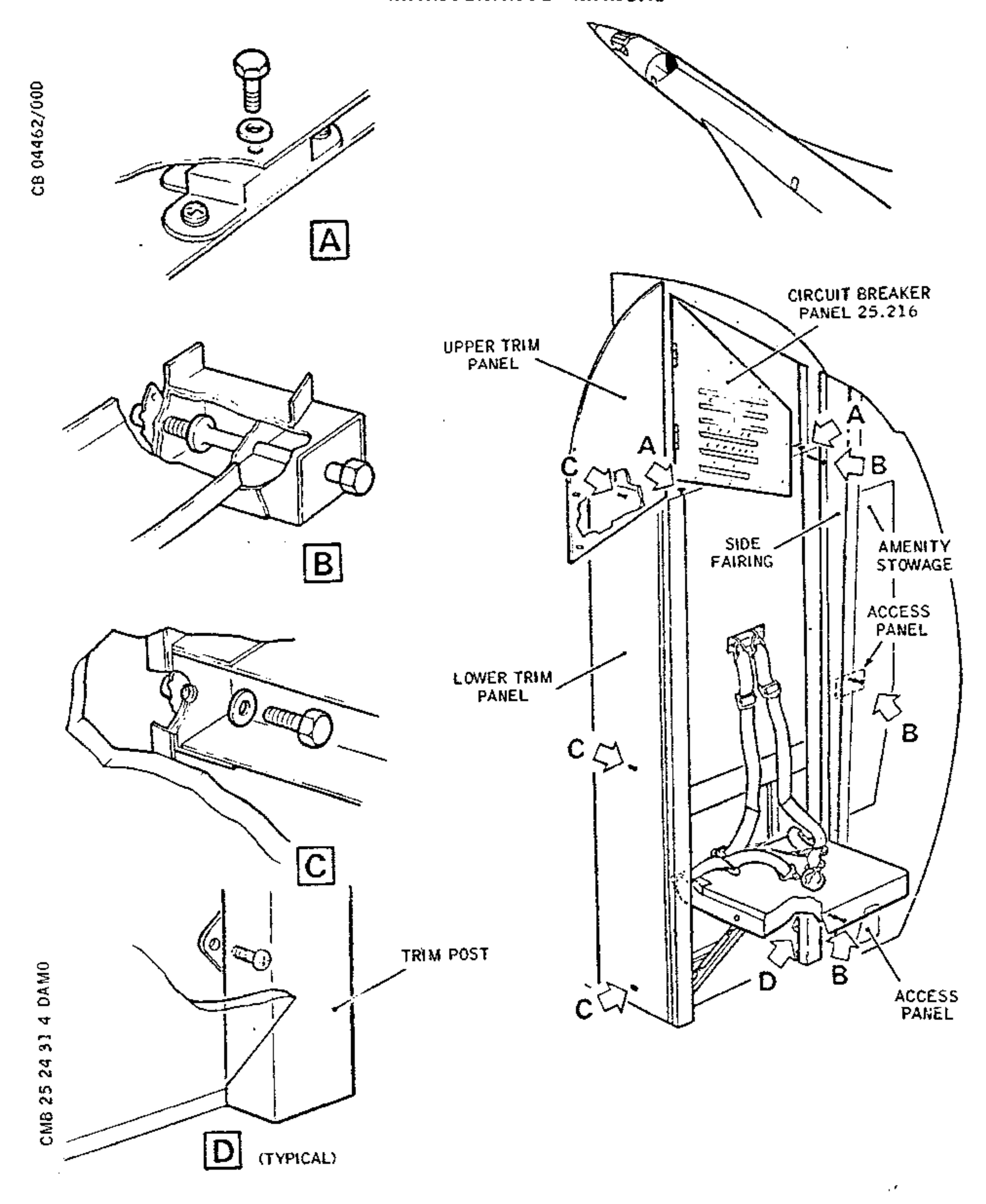
(2) Pull out the seat back-rest to release the hook and loop interlocking tape fastener: remove the back-rest.

(3) Undo the screws and remove the trim post from each seat post (Ref. Detail D).

(4) Undo the fasteners and remove the side fairing and lower trim panel.

(5) Undo the quick release fasteners and hinge open the upper trim panel above the seat back.

(6) Undo the quick-release fasteners and hinge open circuit breaker panel 25-216, located behind the upper trim panel, to gain access to the top horizontal



Forward Vestibule Right-Hand
Seat - Installation
Figure 404

R | EFFECTIVITY: 001-006,

BA

Printed in England

member securing bolts.

(7) Remove the two bolts and washers securing the seat assembly top horizontal member to the structure (Ref. Detail A).

(8) Close the circuit breaker panel and the upper trim panel.

(9) Unscrew and withdraw the three captive bolts securing seat assembly outboard contour. Access to the centre bolt is obtained by removing an access panel inside the stub bulkhead stowage, and access to the bottom bolt is obtained by removing an access panel on the stub bulkhead outboard of the slide/raft girt arm. (Ref. Detail B).

(10) Support the seat assembly and remove the three bolts and washers from the inboard seat post (Ref. Detail C)

(11) Ease the seat assembly rearward to free the assembly from the surrounding structure.

C. Install Right-Hand Seat

(1) Observe the electrical safety precautions and ensure that the ground power is switched off and disconnected from the aircraft.

(2) Position the seat assembly on the aft face of the forward right-hand electrical rack.

(3) Open the upper trim panel and circuit breaker panel 25-216 located behind the upper trim panel.

(4) Fit the three washers and bolts in the inboard seat post, the three captive bolts in the outboard contoured edge, and the two washers and bolts in the top horizontal member to their respective anchor nuts. Torque tighten the vertical bolts (Ref. Details B and C) to between 70 and 80 lbf in. (0.791 to 0.904 mdaN) and the two bolts in the top horizontal member (Ref. Detail A) to between 40 and 45 lbf in (0.452 and 0.509 mdaN).

(5) Close the circuit breaker panel and secure the quick-release fasteners; close the upper trim panel and secure the quick-release fasteners.

(6) Position a trim post on each seat post and secure them with screws.

(7) Press the back-rest firmly into position to engage the hook and loop interlocking tape fasteners.

(8) Fit the side fairing and the lower side trim panel. Secure them with the captive attachment fasteners.

(9) Make available electrical ground power (Ref.24-41-00), remove the warning notice.

7. Stewards Seat Return Spring

DESCRIPTION	PART NO.
Molybdenum Disulphide (Ref.20-30-00, No.77)	-

B. Prepare to Remove Return Spring (Ref. Fig. 405)

(1) Remove the screws securing the inboard and outboard trim posts from the seat assembly concerned; Remove the posts.

(2) With the seat in the lowered position, disconnect the safety harness retracting lanyard (Ref.Detail A):

(a) Remove the circlip and pin to disengage the fork-end from the spring clip, on the seat pan. Retain the fork-end for installation.

After SB 25-067 For A/C 001-007,

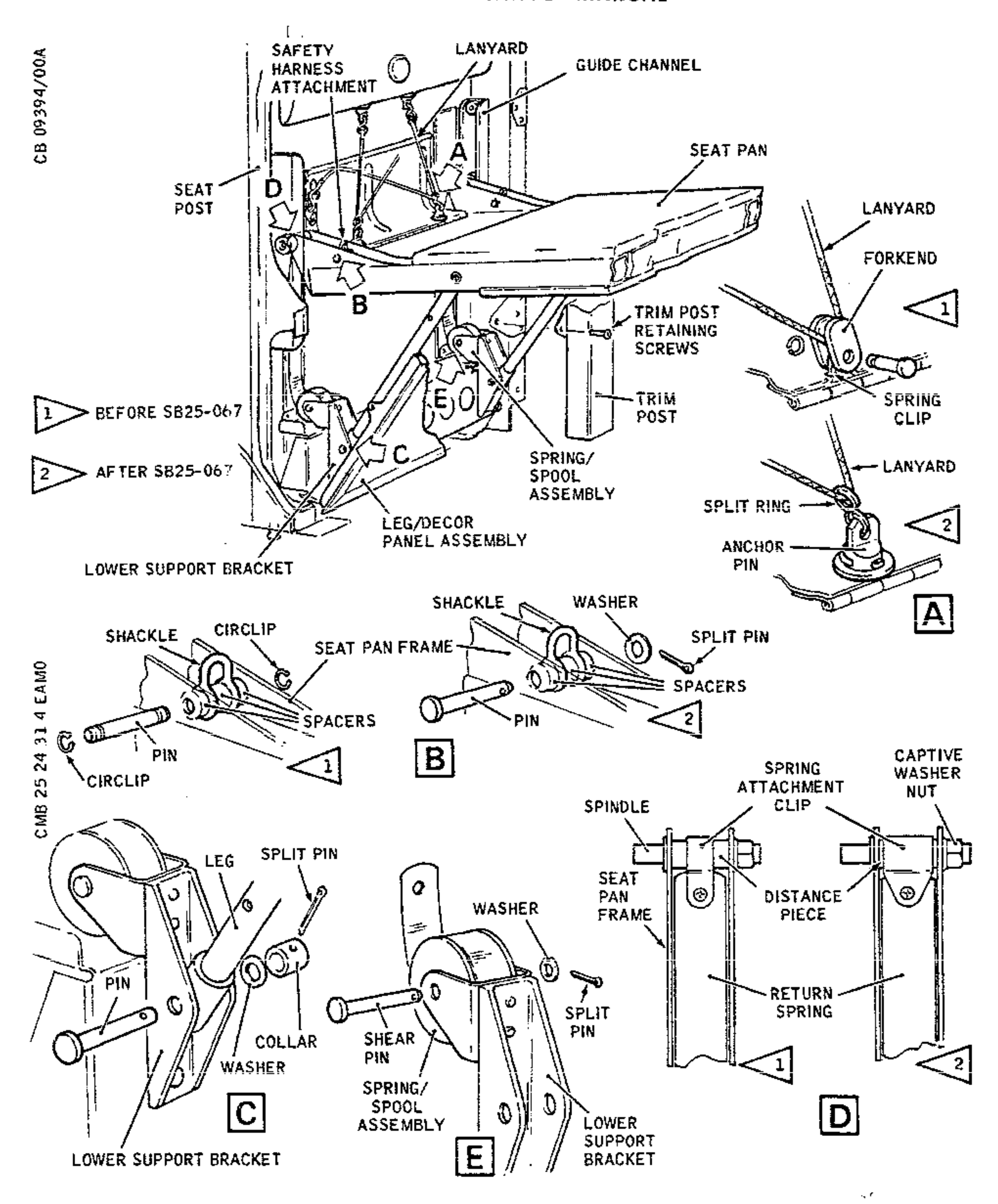
(a) Disconnect the lanyard from the split ring attached to the anchor pin on the seat pan.

(3) With the seat in the lowered position, disconnect the safety harness from each side of the seat pan frame (Ref.Detail B):

(a) Remove the circlips and extract the pin taking care to recover the shackle and the spacers.

After SB 25-067 For A/C 001-007,

(a) Remove the split pin and washer, and extract the pin taking care to recover the shackle and the spacers.



Stewards Seat Return Spring - Installation
Figure 405

R

(4) With the seat in the lowered position, remove the split pin, washer, collar and pin from the lower end of the inboard and outboard seat support legs (Ref.Detail C).

(5) Disengage the leg/decor panel assembly from the lower support brackets and carefully manoeuvre the seat assembly to disengage the rollers from the bottom end of the guide channels. Remove the rollers from the spindles and retain them for installation.

C. Remove Return Spring (Ref. Fig. 405)

CAUTION: THE SPRING HAS A STRONG RECOIL ACTION.

(1) Remove the nut and withdraw the spindle and distance piece attaching the spring assembly to the seat frame (Ref. Detail D).

(2) Remove the split pin, washer and shear pin attaching the spring and spool assembly to the lower support bracket. Remove the spool assembly (Ref. Detail E).

(3) Remove the nut, washer and bolt securing the spring attachment clip to the free end of the spring (Ref. Detail D).

D. Install Return Spring (Ref. Fig. 405)

CAUTION: THE SPRING HAS A STRONG RECOIL ACTION.

(1) Fit the spring attachment clip to the spring. Insert the end of the spring between the tails of the clip and secure it with a bolt, washer and nut (Ref. Detail D).

(2) Position the spring and spool assembly in the support bracket in such a manner that the free-end of the spring unwinds upwards from the spool on the side remote from the observer. Insert the shear pin and secure the pin with a washer and split pin (Ref. Detail E).

(3) Attach the spring to the seat pan frame (Ref.Detail D):

(a) Coat the distance piece with molybdenum disulphide and insert it in the spring attachment clip. Ensure that the clip rotates freely about the distance piece.

(b) Position the seat pan assembly in line with, and close to, the seat posts.

(c) Carefully extend the spring and position the spring clip complete with distance piece between the lugs of the seat pan frame. Insert the spindle through the lugs and distance piece and secure the spindle with a captive washer nut.

(4) Install the seat:

(a) Fit a roller on each spindle and manoeuvre the seat assembly to engage the rollers in the bottom end of the channels on the seat posts.

(b) Raise the seat in the lowered position and engage the leg/decor panel assembly in the lower support brackets. Secure each of the inboard and outboard legs with a pin, washer, collar and split pin (Ref. Detail C).

E. Conclusion

(1) Attach the safety harness to the seat pan (Ref. Detail B):

(a) Ensure that the harness is correctly positioned with no twists in the webbing and fit a shackle to the harness securing ring. Position the spacers and the shackle between the lugs of the seat pan frame.

(b) Insert the pin through the lugs, spacers and shackle and secure it with a circlip at each end of the pin.

After SB 25-067 For A/C 001-007,

(b) Insert the pin, head nearest the seat post, through the lugs, spacers and shackle, and fit a washer and split pin. Ensure that the split pin tails are set close to the pin.

(2) Attach the safety harness retracting lanyard (Ref. Detail A):

NOTE: Ensure that the lanyard is positioned to pass behind the harness.

(a) Position the fork-end over the lanyard and

spring clip on the seat pan. Insert the pin through the fork end and spring clip and secure the pin with a circlip.

After SB 25-067 For A/C 001-007,

(a) Connect the lanyard through the split ring attached to the anchor pin on the seat pan.

(3) Refit the inboard and outboard trim posts and secure them with screws.

(4) Apply hand pressure to lower the seat fully, against the load exerted by the return springs, ensuring that the seat can move freely. Remove hand pressure and check that the seat hinges upward so that the seat retracts flush with the seat trim posts.

STEWARD SEATS' - INSPECTION/CHECK

1. General

Steward seats are located in each vestibule. Each seat incorporates lanyards which, when the seat is fully raised, retracts the safety harness to a position that allows tensator springs to retain the seat flush with the back rest.

2. Inspection/Check

A. Inspection.

(1) Extend the seat fully, and visually examine it for cleanliness and damage.

R **ON A/C 001-005, 007-007,
R B (2) Inspect the safety harness webbing for fraying,
R B opening of weave, security of stitching and
R B contamination (by grease, oil etc.).
R (3) Visually inspect seat structure and supports for
R cracks, burrs and damage.

R B. Check.

R (1) Check the safety harness quick-release buckle for
R correct operation.

R (2) Check all parts for security of attachment. Raise
R the seat to the half-open position, and check the
R two-leaf tensator springs for damage and security.

R (3) Check that the tensator springs return the seat
R from the fully open position to the fully closed
R position, without manual assistance. Simultan-
R eously ensure that the lanyards retract the harness
R into the recess at the rear of the seat so that the
R seat fits flush with the back rest.

END OF THIS SECTION

NEXT

BARPLUS ON-BOARD COMPUTER - ADJUSTMENT/TEST

1. Introduction (Ref. Fig.501 and 502)

   A. The Barplus On-Board Computer (OBC) is a portable unit carried on aircraft where duty-free purchases are available, allowing cabin staff to maintain accurate accounting of sales. When not in use the OBC is stowed in the RH rear hatrack.

2. Equipment and Materials

DESCRIPTION	PART NO.
Current Credit Card	-

3. Check-out Procedure

   A. Release the two latches on the back of the OBC case and hinge open the keyboard/display unit.

   B. Insert the Battery Memory Module (BMM) into location in the base unit. Ensure BMM is positively located on forward guide.

   C. Close keyboard/display unit and lock by closing the two rear latches.

   D. Press the ON key (keyboard, top right) and with reference to the display screen, confirm that the check-out program is loading. On completion of loading sequence the screen will display the following message:

OBC CHECK-OUT
PROGRAM
Version 1.00
Press ANY KEY to continue

   E. Press any key and with reference to the screen confirm that the BACKLIGHT is flashing.

   F. Press any key and in response to the screen message unlock the rear latches and check the status of the case by opening and then closing the keyboard/display unit.

G. Press any key and in response to the screen prompt use a current credit card to check the magnetic card swipe facility.

NOTE: The OBC in test mode does not action any transaction against the card/account used.

H. Press any key and ensure that the printer correctly prints 20 lines of a regular pattern (herringbone).

NOTE: If the printout is blank then check that the correct thermal paper is fitted.

J. Press any key and check the blacked-out screen for any missing pixels.

K. Press any key to set the screen to display all keyboard characters. Press each keypad in turn to delete that character from the screen.

L. In response to the screen display press SHIFT and ESCAPE together and confirm the following message is displayed:

KEYBOARD TEST IS COMPLETED

M. In response to the screen display press any key and ensure that the OBC powers down. Wait a few seconds and then press the ON key to reactivate the unit. Confirm the following message is displayed:

MEMORY HAS BEEN PRESERVED

N. Press any key and confirm the following message is displayed:

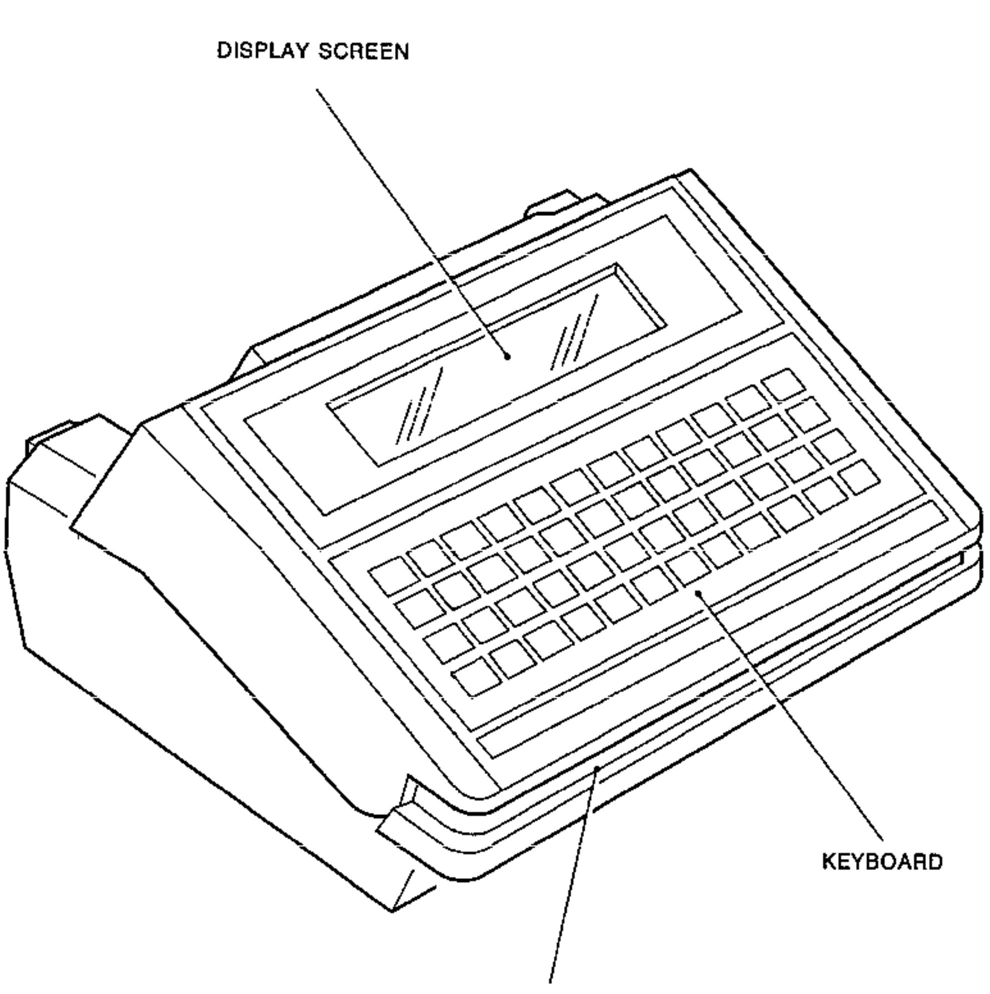
OBC CHECK-OUT IS NOW COMPLETE

P. Press any key and confirm screen goes blank.

Q. Remove OBC and place in recharge rack.

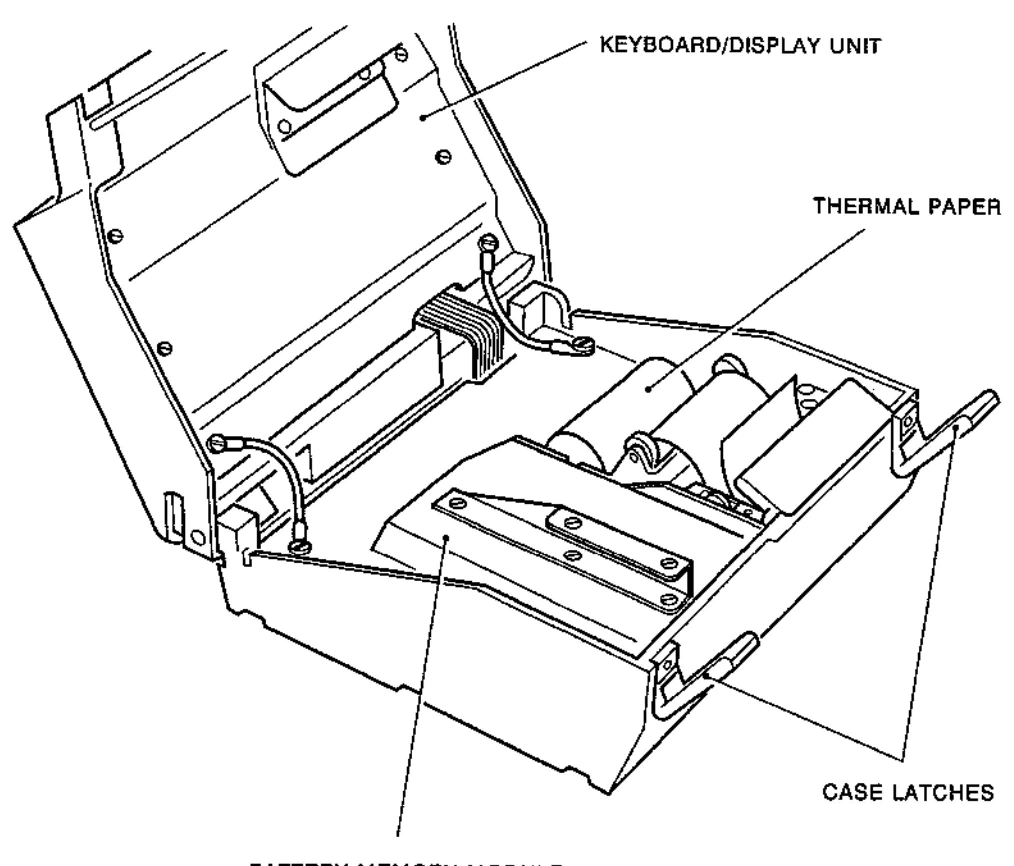
R. Return OBC to aircraft stowage.

PRINTED IN ENGLAND



CMB 25 25 00 5 AAM0 00

Barplus-On-Board Computer
Figure 501



Barplus - On-Board Computer - Internal View
Figure 502

BARPLUS ON-BOARD COMPUTER - REPAIRS

1. General

A. Repair

If the catches on the Barplus On-board computer are found to be broken, they may be changed in situ. (Ref. IPC 25-21-10 Fig.25).

BUFFET/GALLEY - DESCRIPTION AND OPERATION

1. General (Ref. Fig. 001)

Seven galleys, three main (Nos.1,2 and 7) and four supplementary (Nos.3,4,5 and 6), are fitted at various locations throughout the aircraft. Two switches on the electrical services panel at the 3CM station enable electrical power to the galleys to be shed in an emergency or in electrical overload conditions.

Fresh water, for the water heaters, is supplied from the aircraft pressurized water storage tanks. Waste water is drained overboard via drain masts.

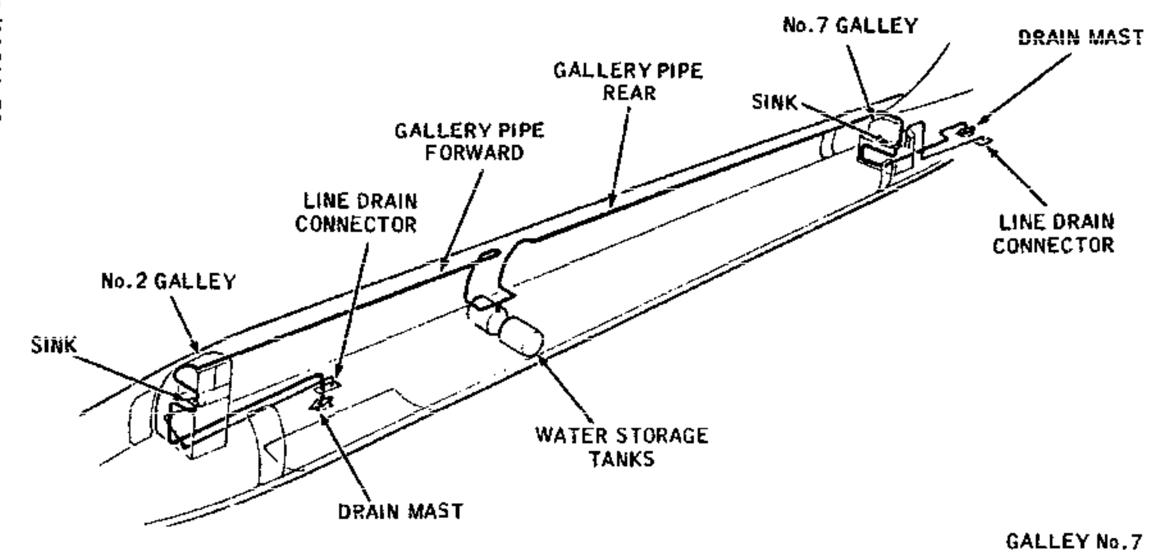
Individual galley topics, listed below, describe the equipment fitted to, or stowed in, the various galleys.

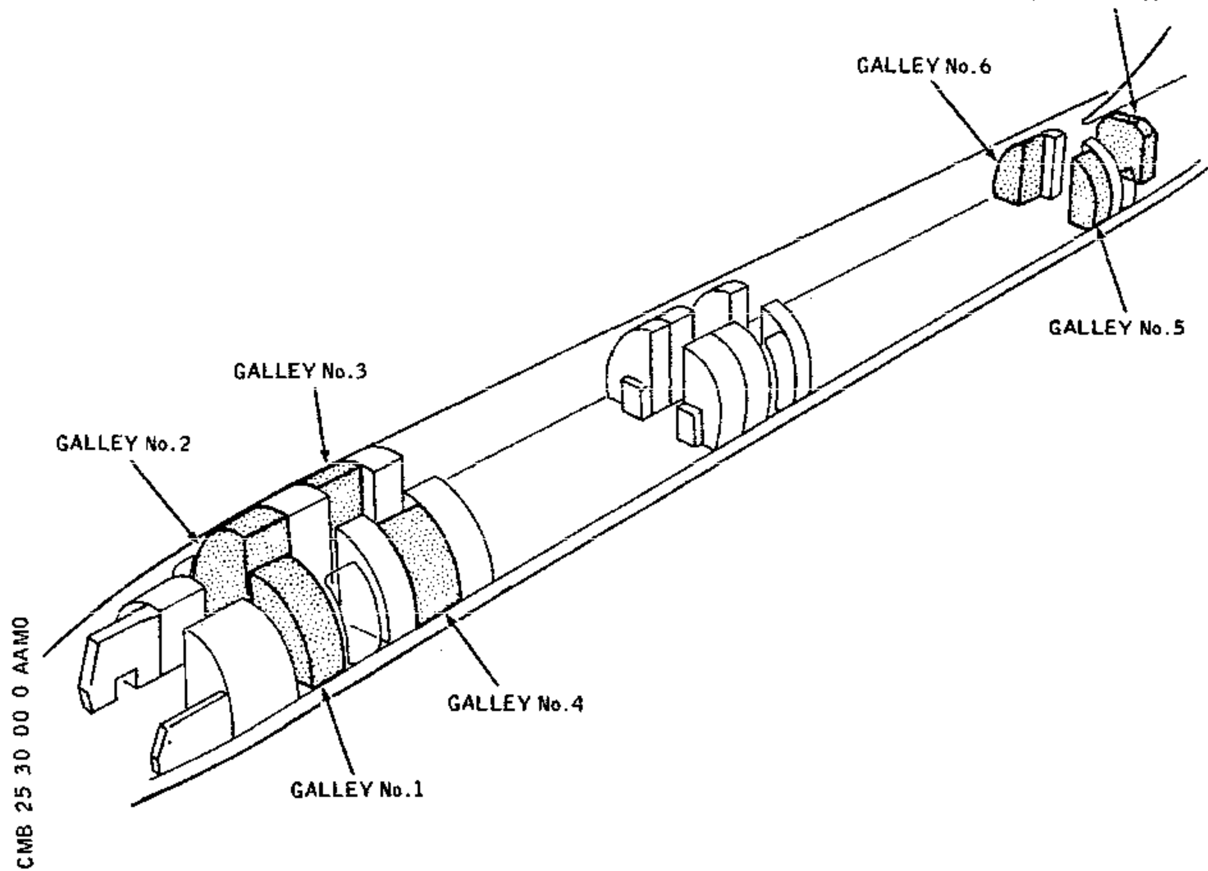
2. Electrical Power Supplies

Details of the electrical power supplies for the galleys are given in Table 1.

SERVICE	BUSBAR	CIRCUIT BREAKER PANEL
Galleys 1, 2 and 7 Supplies:	No.1 main a.c.1X	22-215
	No.2 main a.c.2X	21-215
	No.3 main a.c.3X	21-216
	No.4 main a.c.4X	22-216
Shed galley switch supply		
Generators 1 and 3	No.2 main d.c.2P	15-216
Generators 2 and 4	No.1 main d.c.1P	15-215

Electrical Power Supplies
Table 1

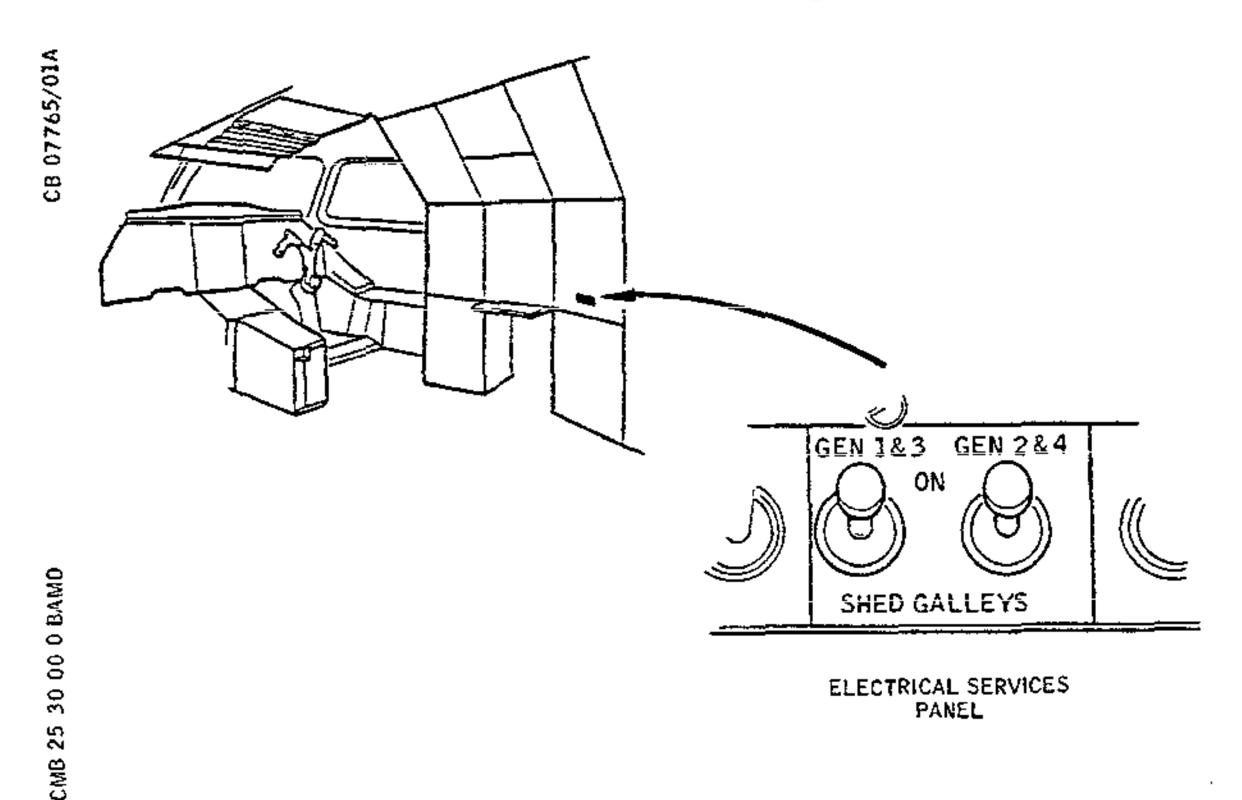




Galleys - Location
Figure 001

3. Operation

A. Controls and Indicators (Ref. Fig. 002)



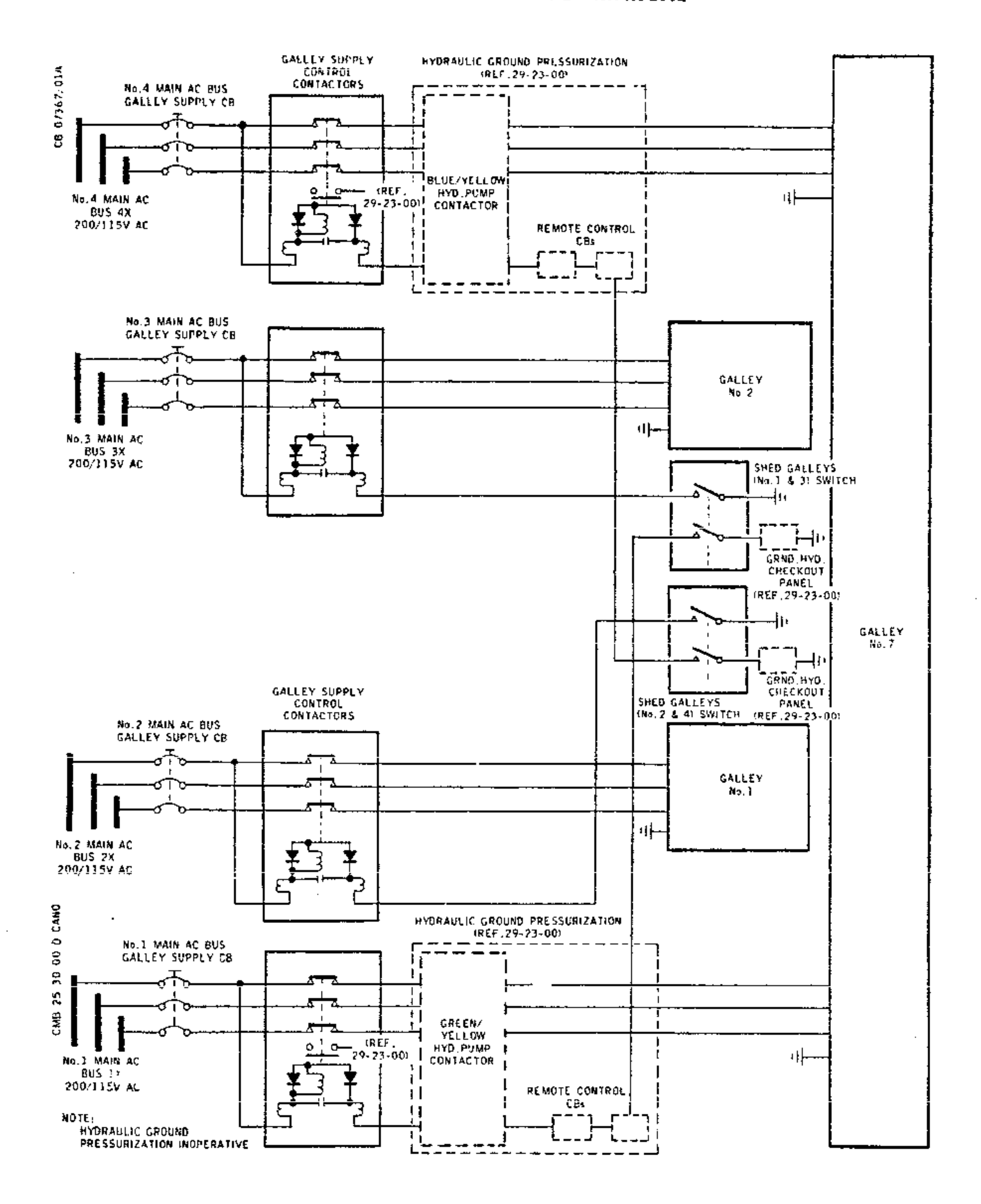
Galleys - Controls and Indicators
Figure 002

The controls and indicators for individual galleys are described in the appropriate topics (Ref.Para.1).

Controls and indicators for the galley systems are the SHED GALLEY switches on the electrical services panel at the 3CM station.

B. Functional Description (Ref. Fig. 003)

Electrical power for the three main galleys is supplied from the main 200/115V a.c. busbars. Supplies for No.1 and 2 galleys are taken from No.2 and 3 busbars respectively and those for No.7 galley are taken from No. 1 and and 4 busbars. Individual supplies from the main busbars are routed through contactors which are located in the flight compartment racking 12-215 and 12-216, and connected to two SHED GALLEY switches on the electrical services



Galley Power Supplies - Simplified Electrical Schematic Diagram
Figure 003

panel 6-214. The two contactors associated with No.7 galley are also connected to the hydraulic ground pressurisation system (Ref.29-23-00), which is integrated with part of the galley circuit for reasons of weight saving.

Under normal conditions when the hydraulic ground pressurization system is inoperative, the SHED GALLEY switch is at 'off' and electrical power is delivered to the galleys. During an electrical overload, one, or both, of the SHED GALLEY switches can be set to "ON" so that the associated galley control contactors will be switched to disconnect the selected galleys from the busbars. The supplies to No.7 galley will also be automatically disconnected if the hydraulic ground pressurization pumps are operating.

BUFFET/GALLEY - REMOVAL/INSTALLATION

WARNING: COMPLY WITH THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

1. General

This topic contains general instructions for the removal/installation of minor electrical components, fitted to panels and equipment racks, that are common to 25-30-00.

The panels and equipment racks and their associated minor electrical components are as follows:

Flight compartment racking (12-215) - two 50Amp, 3 pole contactors (H1887,H1888)
Flight compartment racking (12-216) - two 50Amp, 3 pole contactors (H1885,H1886)
Lower electrical services panel (6-214) - two SHED GALLEY switches (H1882,H1897)

The four contactors are accessible by opening the appropriate circuit breaker panels. The two SHED GALLEY switches are mounted from the rear of the lower electrical services panel and are accessible with the panel lowered on its hinges.

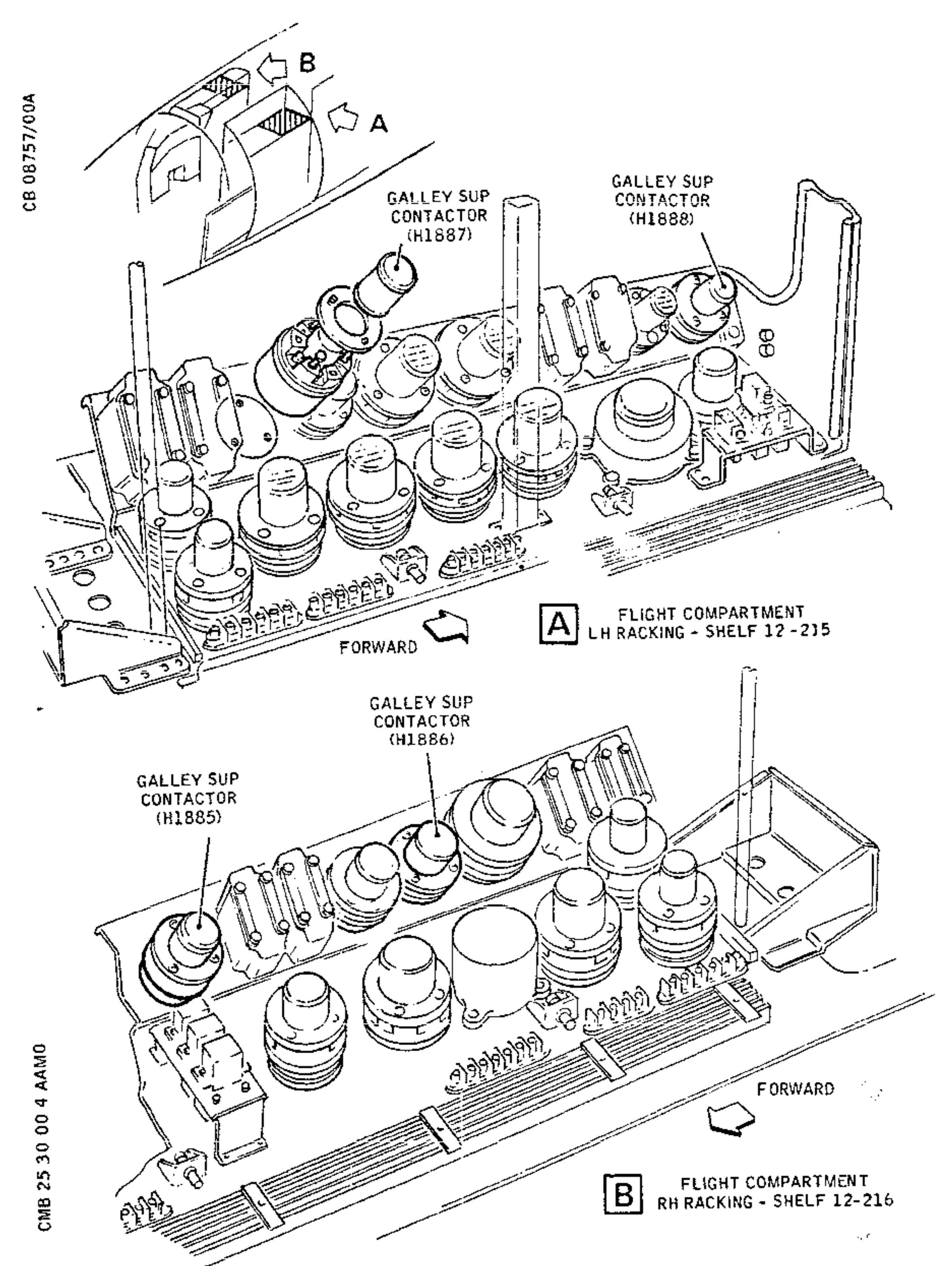
2. Contactors on Racking 12-215 and 12-216

A. Prepare to remove contactor (Ref. Fig. 401)

(1) Isolate the electrical generation and external power in accordance with 24-00-00, Servicing.

(2) Gain access to the contactor by loosening the quick-release fasteners securing the appropriate circuit breaker panel, pressing in the spring retaining clip and hinging open.

CONTACTOR	LOCATION	ACCESS
H1885	12-216	14-216
H1886	12-216	14-216
H1887	12-215	14-215
H1888	12-215	14-215



Galley Supply Contactors - Shelf 12-215 and 12-216
Figure 401

(3) Identify the contactor to be removed.

B. Remove

(1) Remove the contactor terminal cover.

(2) Disconnect the electrical wires (8 on H1886 and 8 on H1887, 10 on H1885 and 10 on H1888).

(3) Remove the three hexagon headed bolts and flat washers securing the contactor and remove the contactor.

(4) Refit the contactor terminal cover.

C. Install

(1) Comply with the electrical safety precautions.

(2) Remove the contactor terminal cover.

(3) Position the contactor on the racking and secure the contactor with the three hexagon headed bolts and flat washers.

(4) Connect the electrical wires to the contactor (8 on H1886 and 8 on H1887, 10 on H1885 and 10 on H1888) with the nuts and captive washers, ensuring that the connections are made in accordance with the wire identifications and the applicable wiring diagrams. Torque-tighten the nuts in accordance with 20-27-14.

(5) Refit the terminal cover to the contactor.

D. Conclusion

(1) Check that the area is clean, close the panel and secure it with the quick-release fasteners.

(2) Make available electrical ground power (Ref.24-41-00).

(3) Carry out the Buffet/Galley Operational Test (Ref.25-30-00, Adjustment/Test).

3. <u>Shed Galley Switches on Panel 6-214</u>

<u>CAUTION:</u> ELECTROLUMINESCENT (EL) PANELS ARE SUSCEPTIBLE TO SCRATCHES AND CRACKS. ENSURE THAT TOOLS DO NOT

Printed in England

DAMAGE THE POLISHED WALLS OF THE PANELS.

**ON A/C 001-005,

A. Prepare to remove switch (Ref. Fig. 402)

R **ON A/C 006-007,

A. Prepare to remove switch (Ref. Fig. 403)

(1) Isolate the electrical generation and external power in accordance with 24-00-00, Servicing.

(2) Gain access to the switch by loosening the quick-release fasteners securing panel 6-214, pressing in the spring retaining clip and lowering the panel on its hinges to the extent of the check cords.

(3) Identify the switch to be removed.

**ON A/C 001-005,

B. Remove

(1) Withdraw the four pin inserts from the rear of the switch in accordance with Wiring Diagram Manual 20-42-18.

(2) Using a tubular spanner remove the nut and washer, securing the switch, from the front of the panel; withdraw the switch and locating washer from the panel rear.

R **ON A/C 006-007,

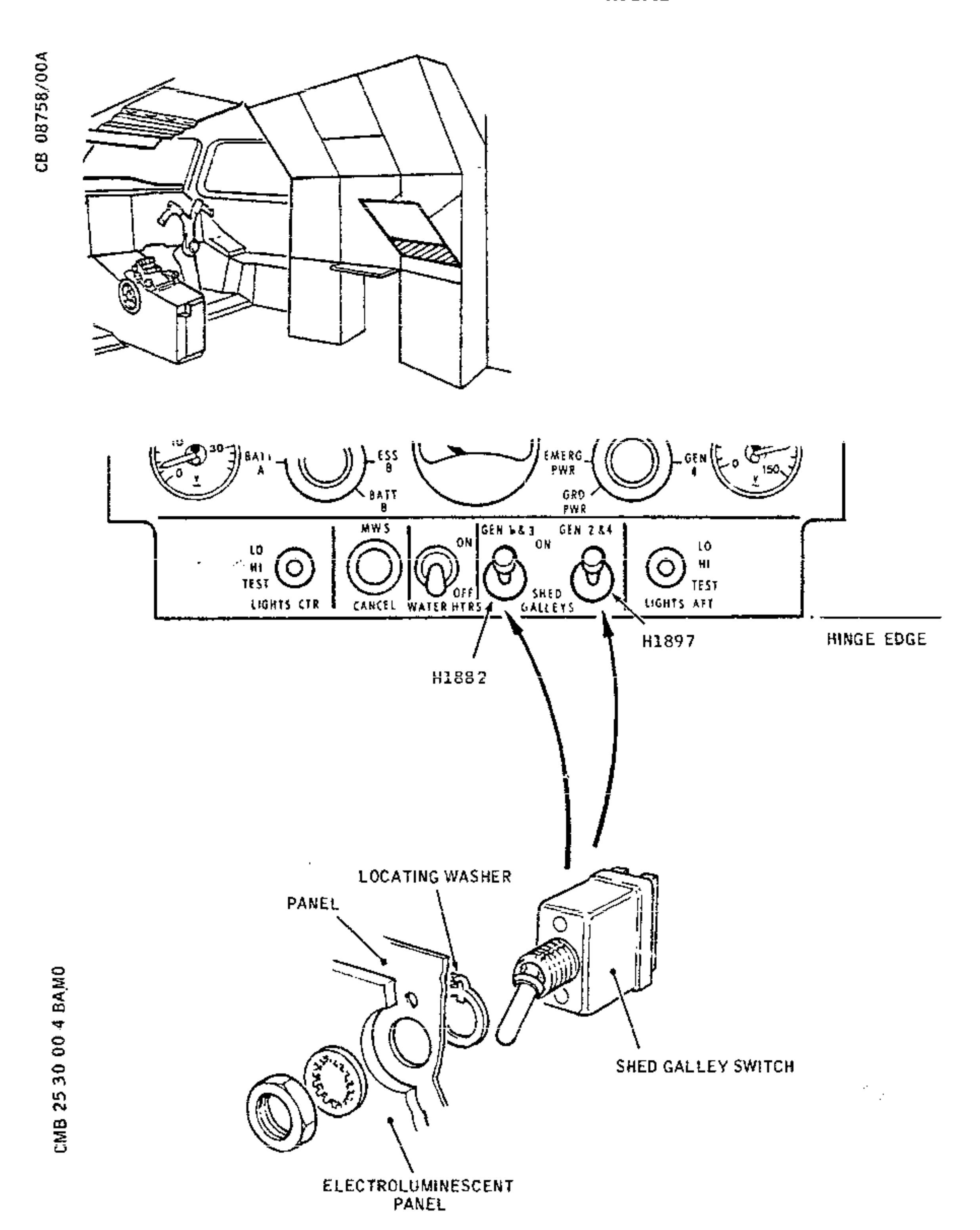
B. Remove

(1) Disconnect the six flying leads connecting the switch by withdrawing the relevant pin inserts, from the appropriate terminal junction blocks mounted on the rear of the panel, in accordance with Wiring Diagram Manual 20-42-18.

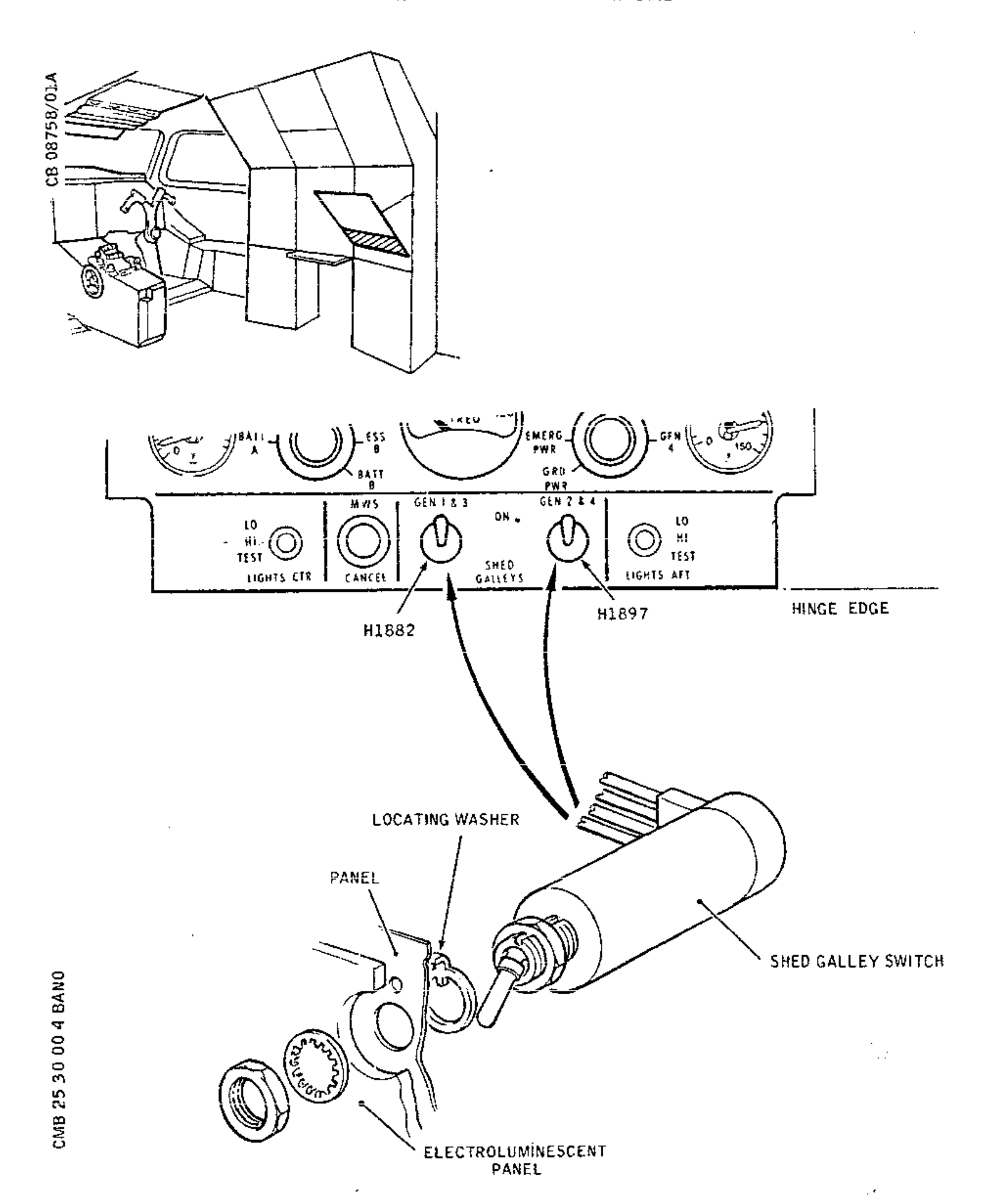
(2) Using a tubular spanner remove the nut and washer, securing the switch, from the front of the panel; withdraw the switch and locating washer from the panel rear.

C. Install

(1) Comply with the electrical safety precautions.



Shed Galley Switches - Panel 6-214
Figure 402



Shed Galley Switches - Panel 6-214
Figure 403

(2) Position the locating washer on the switch and insert the switch through the opening from the panel rear; ensure that the lug on the washer engages the locating hole in the panel.

(3) Secure the switch with the nut and washer.

**ON A/C 001-005,

(4) Connect the four electrical wires to the switch, ensuring that the connections are made in accordance with the wire identifications and the applicable wiring diagram. Connect pin inserts in accordance with Wiring Diagram Manual 20-42-18.

R **ON A/C 006-007,

(4) Connect the six appropriate flying leads of the switch to the relevant terminal junction blocks, in accordance with the wire identifications and the applicable wiring diagram. Connect pin inserts in accordance with Wiring Diagram Manual 20-42-18.

D. Conclusion

(1) Check that the area is clean, close the panel and secure it with the quick-release fasteners.

(2) Make available electrical ground power (Ref.24-41-00).

(3) Carry out the Buffet/Galley Operational Test (Ref.25-30-00, Adjustment/Test).

R

BUFFET/GALLEY - ADJUSTMENT/TEST

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

1. General

Operational tests on the galley electrical supplies, to ensure that the galley electrical load shedding system is operating satisfactorily, are detailed in this topic. The locations of the various controls and indicators used during the tests are shown on the illustration (Ref. Fig. 501).

2. Galley Electrical Shed - Operational Test

A. Prepare

(1) Make available electrical ground power (Ref. 24-41-00).

(2) Ensure that the circuit breakers listed below are set:

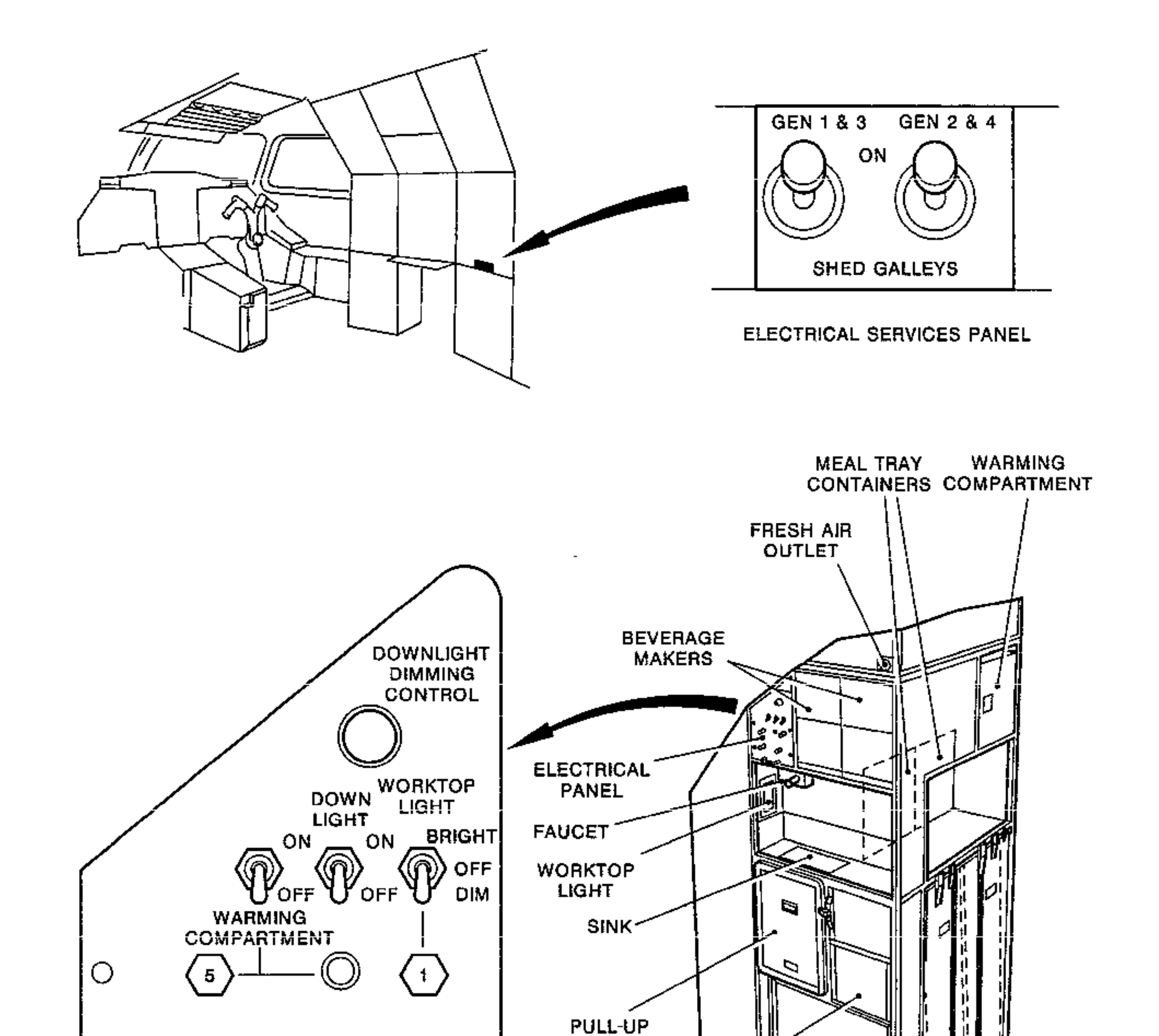
SERVICE	PANEL	CIRCUIT BREAKER	MAP REF.
No.1 MAIN AC BUS GALLEY SUP	22-215	H1896	-
No.2 MAIN AC BUS GALLEY SUP	21-215	H1895	-
No.3 MAIN AC BUS GALLEY SUP	21-216	H1894	-
No.4 MAIN AC BUS GALLEY SUP	22-216	H1893	-
GRND POWER PROTN UNIT SUP	25-216	X30	B 2

(3) Place suitable warning placards in the flight compartment to prevent the circuit breakers from being inadvertently tripped.

B. Test (Ref. Fig. 501)

(1) Ensure that the two SHED GALLEY switches on the electrical services panel at the 3CM station are selected "ON".

(2) At the oven controllers on galleys 1 and 7, check



PRINTED IN ENGLAND

RB

Galley - Controls and Indicators
Figure 501 (Sheet 1 of 2)

A

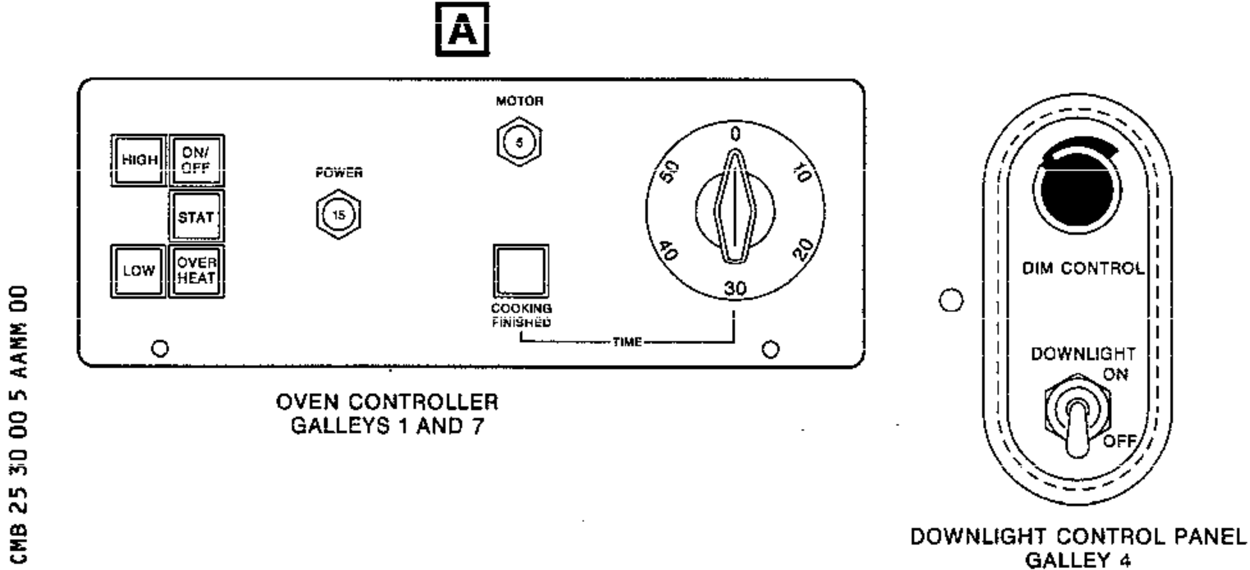
PUSH

GALLEY 7 (LOOKING AFT)

ON
WARMING COMPARTMENT
OFF
5
10
BEV MAKER 1
10
BEV MAKER 2

GALLEY 7
CONTROL PANEL
WARMING COMPARTMENT
BEV. MAKER C/Bs.

A



OVEN CONTROLLER
GALLEYS 1 AND 7

DOWNLIGHT CONTROL PANEL
GALLEY 4

CMB 25 30 00 5 AAMM 00

PRINTED IN ENGLAND

RB

Galley - Controls and Indicators
Figure 501 (Sheet 2 of 2)

that the 15A POWER circuit breakers are set and then select the power switches to "ON". Check that the white POWER indicator lights illuminate.

RB

(3) On the electrical services panel, set the two SHED GALLEY switches to "SHED". Check that the white power ON indicator lights on galleys 1, 2 and 7 are extinguished.

(4) Set both SHED GALLEY switches to "ON", the oven and bev maker POWER switches on galleys 1, 2 and 7 to "OFF". Check that all the white power indicator lights on galleys 1, 2 and 7 are extinguished.

C. Conclusion

(1) Switch off and disconnect electrical ground power (Ref. 24-41-00).

(2) Remove the warning placards from the flight compartment.

3. Galley Electrical Supplies and Associated Hydraulic Pump - Operational Test

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS (REF. 24-00-00).

OBSERVE THE APPROPRIATE HYDRAULIC SAFETY PRECAUTIONS (REF. CHAPTER 29).

A. Prepare

(1) Make available electrical ground power (Ref. 24-41-00).

(2) Ensure that the circuit breakers listed below are set:

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
No.1 MAIN AC BUS GALLEY SUP	22-215	H1896	-
No.2 MAIN AC BUS GALLEY SUP	21-215	H1894	-

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
No.3 MAIN AC BUS GALLEY SUP	21-216	H1894	-
No.4 MAIN AC BUS GALLEY SUP	22-216	H1893	-
GRND POWER PROTN UNIT SUP	25-216	X30	B 2

(3) Place suitable warning placards in the flight compartment to prevent the circuit breakers from being inadvertently tripped.

B. Test (Ref. Fig. 501)

(1) Ensure that the SHED GALLEY switches on the electrical services panel are at "ON", then, on a galley 7 oven controller, check that the 15A POWER circuit breaker is set and select the POWER switch to "ON". Check that the white POWER indicator light is illuminated.

(2) On the GROUND HYD CHECK OUT panel at 3CM station, set the rotary selector switch to BLUE/YELLOW and select the PUMP 1 G-Y switch to "ON". Check, on galley 7, that the white POWER indicator light is extinguished.

(3) At the 3CM station, set the PUMP 1 G-Y switch to "OFF" then check that the white POWER indicator light on galley 7 oven controller, illuminates. Select the POWER switch, on the oven controller to "OFF" and confirm that the white POWER indicator light extinguishes.

RB

(4) On the GROUND HYD CHECK CUT panel, set the rotary selector switch to GREEN/YELLOW and select the PUMP 2 B-Y switch to "ON". Check that the white power ON indicator light, on galley 7, is extinguished.

(5) At the 3CM station, set the PUMP 2 B-Y switch to "OFF", and check that the white power ON indicator light on galley 7 illuminates.

RB

C. Conclusion

(1) Switch off and disconnect electrical ground power (Ref. 24-41-00).

(2) Remove the warning placards from the flight compartment.

BUFFET/GALLEY - INSPECTION/CHECK

1. General

Galleys are of two types: those housing electrical and water supplies, and those which merely form storage units.

A periodic inspection is required to ensure that the galley attachments, including those for the worktops, where fitted, are in a satisfactory condition.

2. Galleys (Including System Connections)

A. Inspection

(1) Visually inspect all parts for cleanliness, damage and condition of protective treatments.

(2) Examine the floor in areas where food trolleys are stowed for wear and freedom from foreign particles. Also ensure that the fluid seal around the floor boundary is intact.

(3) Ensure that the hot cup is serviceable.

B. Check

(1) Check all parts for security, including security of electrical bonding leads where fitted.

(2) Check satisfactory operation of each drawer, where fitted.

(3) Ensure that all door latches secure their doors after opening and shutting.

(4) Ensure that all retaining and restraining devices for meal boxes and trolleys operate satisfactorily in both the 'holding' and 'release' positions.

(5) Check that all runners which support food containers are secure and undamaged.

(6) Where ovens are fitted:

(a) Check that attachment bolts to the worktop are secure.

(b) Open the oven doors and ensure that the door seal is serviceable, and that the door vent is unrestricted.

(c) Close the door and ensure that the door is secured by its primary and secondary latches.

(7) Where water boilers are fitted:

(a) Check that attachment screws, to the lower surface of the boiler, are secure.

(b) Check for water leakage from the boiler.

(c) Operate the faucet to fill the sink with water, then release the faucet. Ensure that the faucet does not drip.

(d) Operate the sink drain lever to empty the sink; check that the water spills overboard from the drain mast, and the drain pipes, within the galley, do not leak.

(8) Check satisfactory operation of immersion heater.

3. Galley Attachments

NOTE: For Inspection/Check of attachments for galleys No.1,2 and 7 it is necessary that the galleys are partially removed including removal of some of the galley equipment but, for the inspection of attachments for galleys No.3 to 6, complete removal of the galleys is necessary.

A. General

(1) Visually inspect all parts listed in Table 1 for cleanliness, damage, corrosion and security. For attachments at and below worktop level,pay particular attention to contamination from food and beverages. For attachments above worktop level, inspect for signs of condensation and distortion. Also inspect all attachment holes and, where possible, surrounding areas for damage.

R **ON A/C 001-005,

GALLEY NO:	ATTACH FITTINGS	ACCESS
1	(1) Worktop T-brackets to forward bulkhead (2 off).	

GALLEY NO:	ATTACH FITTINGS	ACCESS
	(2) Aft-bulkhead to inboard post. (3) Double oven to oven shelf. (4) Worktop to brackets on forward bulkhead.	Remove meal and beverage trolleys and ovens.
2	(1) Spigot pins to fuselage roof attachments (2 off). (2) Galley attachment fittings to fuselage. (3) Aft bulkhead to floor. (4) Worktop to forward edge of waste bins stowage assembly. (5) Waste bin stowage assembly angles to floor.	Disconnect electrical supply,drain and disconnect water supply, and disconnect sink drain pipe. Remove meal boxes and trolleys, spigot cover plates and spigots from roof. Remove fasteners at forward and aft edges of waste bin stowages at foot of aft bulkhead, and those securing the sink; remove the upper part of the galley complete with the aft bulkhead. Remove the ceiling panel covering the roof attachment. Remove waste bin stowage base panel.
3	(1) Forward and aft bulkhead foot fittings (4 off), including seat rails in vicinity of fittings. (2) Top unit assembly to the forward and aft bulkheads.	Remove meal tray boxes. Open magazine stowage door to gain access to coat rail compartment, then remove forward and aft bulkheads.
4	(1) Forward and aft bulkhead foot fittings to seat rails (4 off).	Remove meal tray boxes and waste bin from its stowage, then remove forward and aft bulkhead.

GALLEY NO:	ATTACH FITTINGS	ACCESS
	(2) Worktop and shelves secure with forward and aft bulkhead.	
5 & 6	(1) Forward and aft bulkhead foot fittings (4 off), including seat rails in vicinity of fittings.	Remove meal tray boxes and Forward and Aft bulkheads.
7	(1) Worktop to sidewalls. (2) Bulkhead structural beam. (3) Spigot pin to left and right electrical racking, above worktop.	Remove meal and beverage trolleys, then remove waste bin stowage assembly. Also remove oven and right hand side panels (looking aft) above work top.
	(4) Waste bin stowage assembly angles to floor.	Remove waste bin stowage base panel.
	(5) Double oven to worktop.	

Galley Attachments and Access
Table 1

R **ON A/C 006-007,

GALLEY NO:	ATTACH FITTINGS	ACCESS
1	(1) Worktop T-brackets to forward bulkhead (2 off). (2) Aft-bulkhead to inboard post. (3) Double oven to oven shelf. (4) Worktop to brackets on forward bulkhead.	Remove meal and beverage trolleys and ovens.

GALLEY NO:	ATTACH FITTINGS	ACCESS
2	(1) Spigot pins to fuselage roof attachments (2 off). (2) Galley attachment fittings to fuselage. (3) Aft bulkhead to floor. (4) Worktop to forward edge of waste bins stowage assembly. (5) Waste bin stowage assembly angles to floor.	Disconnect electrical supply,drain and disconnect water supply, and disconnect sink drain pipe. Remove meal boxes and trolleys, spigot cover plates and spigots from roof. Remove fasteners at forward and aft edges of waste bin stowages at foot of aft bulkhead, and those securing the sink; remove the upper part of the galley complete with the aft bulkhead. Remove the ceiling panel covering the roof attachment. Remove waste bin stowage base panel.
3 & 4	(1) Base assembly foot fittings (4 off), including seat rails in vicinity of fittings. (2) Fore and aft bulkheads to base assembly. (3) Vertical panels and shelves to bulkheads and base assemblies.	Remove meal tray containers, meal trolley, waste bin and waste bin blanking panel. Remove fore and aft bulkheads.
7	(1) Worktop to sidewalls. (2) Bulkhead structural beam. (3) Spigot pin to left and right electrical racking, above worktop.	Remove meal and beverage trolleys, then remove waste bin stowage assembly. Also remove oven and right hand side panels (looking aft) above work top.

GALLEY NO:	ATTACH FITTINGS	ACCESS
	(4) Waste bin stowage assembly angles to floor.	Remove waste bin stowage base panel.
	(5) Double oven to worktop.	

Galley Attachments and Access
Table 1

R

GALLEYS - CLEANING AND PAINTING

1. General

All the galleys must be cleaned at regular intervals. Care must be taken with electrical equipment in galleys No.1, 2 and 7. When leaving the aircraft after cleaning, ensure that no equipment has been left on board.

2. Cleaning

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clip	-
Rubber gloves	-
Cleaning solvent, Ardrox 6025 (Ref. 20-30-00, No.455)	-

B. Prepare

(1) Electrically isolate the galleys by tripping the following circuit breakers and fitting safety clips.

	SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
R	NO.1 MAIN AC BUS GALLEY SUP	22-215	H1896	-
R	NO.2 MAIN AC BUS GALLEY SUP	21-215	H1895	-
R	NO.3 MAIN AC BUS GALLEY SUP	21-216	H1894	-
R	NO.4 MAIN AC BUS GALLEY SUP	22-216	H1893	-

C. Clean

RB WARNING: ENSURE ALL THE OVEN AND BEVERAGE MAKER ON/OFF SWITCHES ARE IN THE OFF POSITION.

(1) Use protective clothing such as rubber gloves.

(2) Clean all metal and painted surfaces including floor, work surface and decor panels. Use a solution of one part 'Ardrox 6025' to 10-15 parts water according to strength required.

CAUTION: UNDER NO CIRCUMSTANCES MUST STEAM CLEANING BE USED ON ANY PART OF THE GALLEY AREAS.

(3) Apply cleaner by brush, sponge or cloth to surface. Allow 5-10 minutes for chemical action of cleaner before final rubbing as necessary.

(4) Rinse off with clean water.

NOTE: Do not allow water or cleaner to flow into electrical assemblies or sockets or into inaccessible areas where it will not dry. Newly painted galleys must not be cleaned within 14 days of the repaint.

(5) Do not allow cleaner to dry upon painted surfaces before rinsing off. Clean nylon and tufnol runners using hot water. Dry and polish using a clean cloth.

(6) Dry galley areas thoroughly.

R

3. Deep Clean Procedure (Ref. Fig. 701 and 702)

B A. Equipment and Materials

B (1) Racasan detergent sanitizer code number MCCL 0161.

B B. Dissolving detergent sanitizer as recommended on container, thoroughly clean all areas of galleys shown in Figs. 701 & 702.

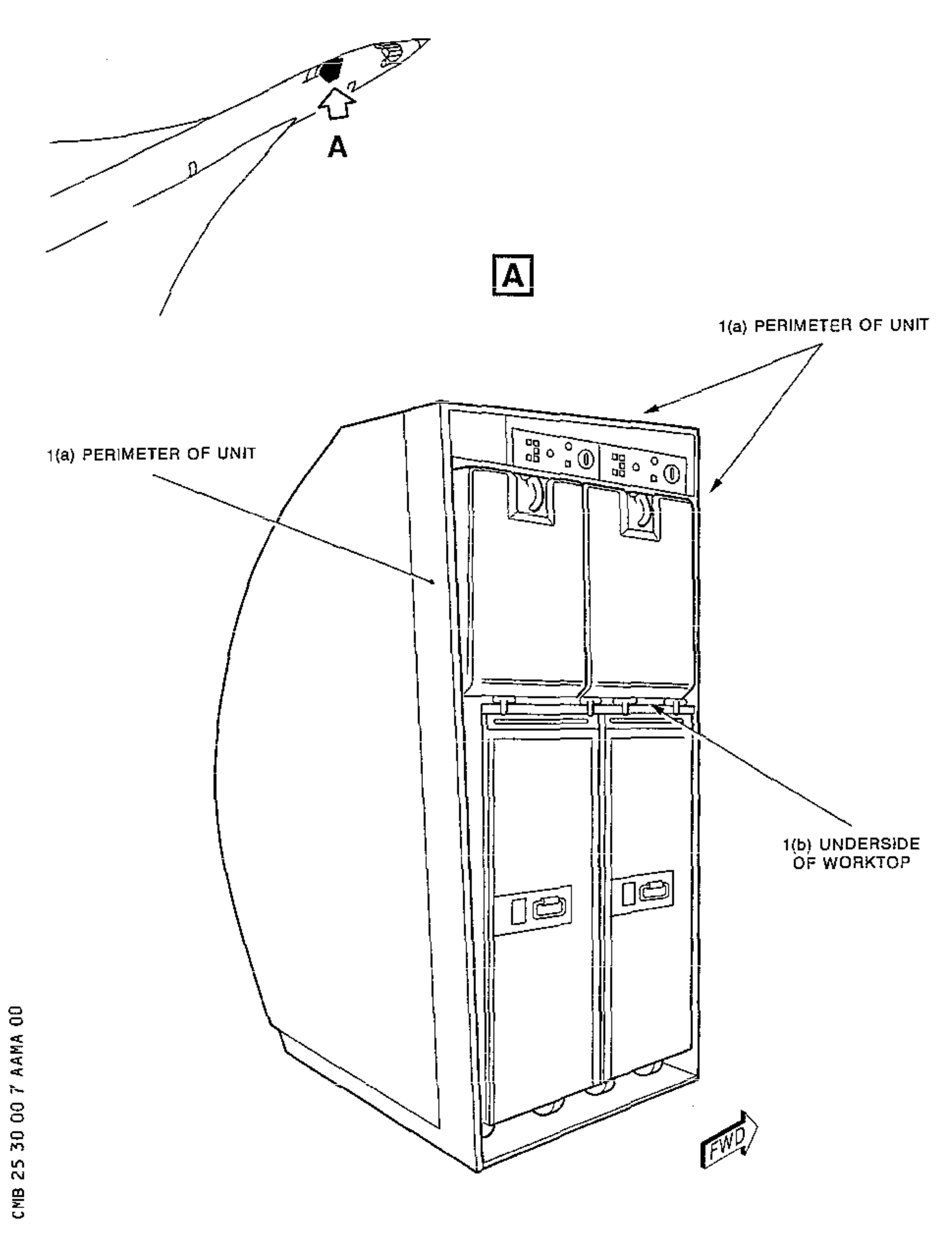
B C. Procedure

B (1) Galley 1 (Fig. 701 Sheet 1 of 7).

B (a) Around the perimeter of the unit, where the seal is set back.

B (b) The underside of the worktop.

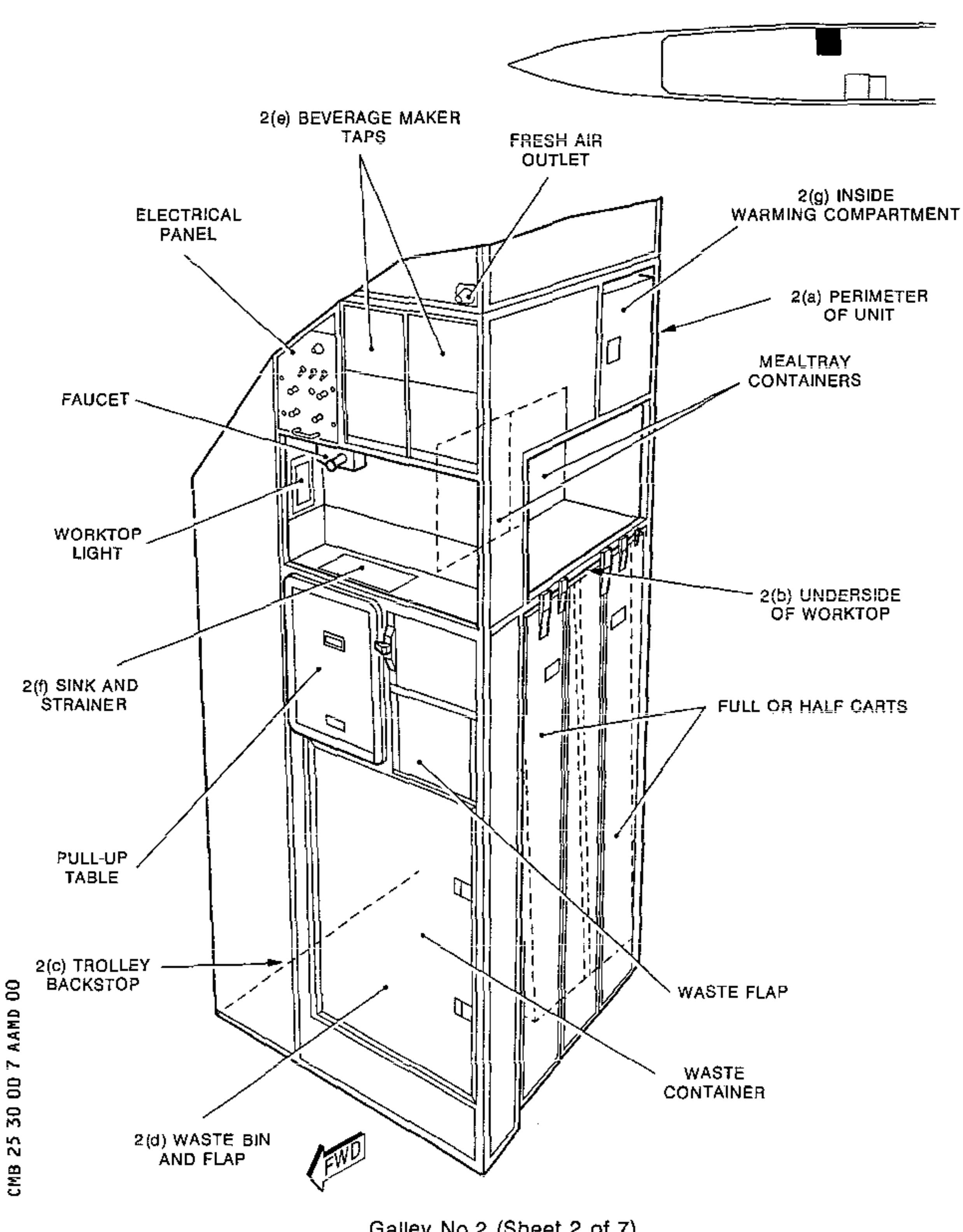
B (2) Galley 2 (Fig. 701 Sheet 2 of 7).



CNIB 25 30 00 7 AAMA 00

B

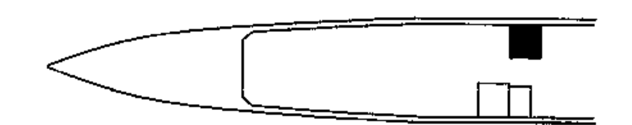
Galley No.1 (Sheet 1 of 7)
Figure 701



PRINTED IN ENGLAND

RB

Galley No.2 (Sheet 2 of 7)
Figure 701



3(a) PERIMETER OF UNIT

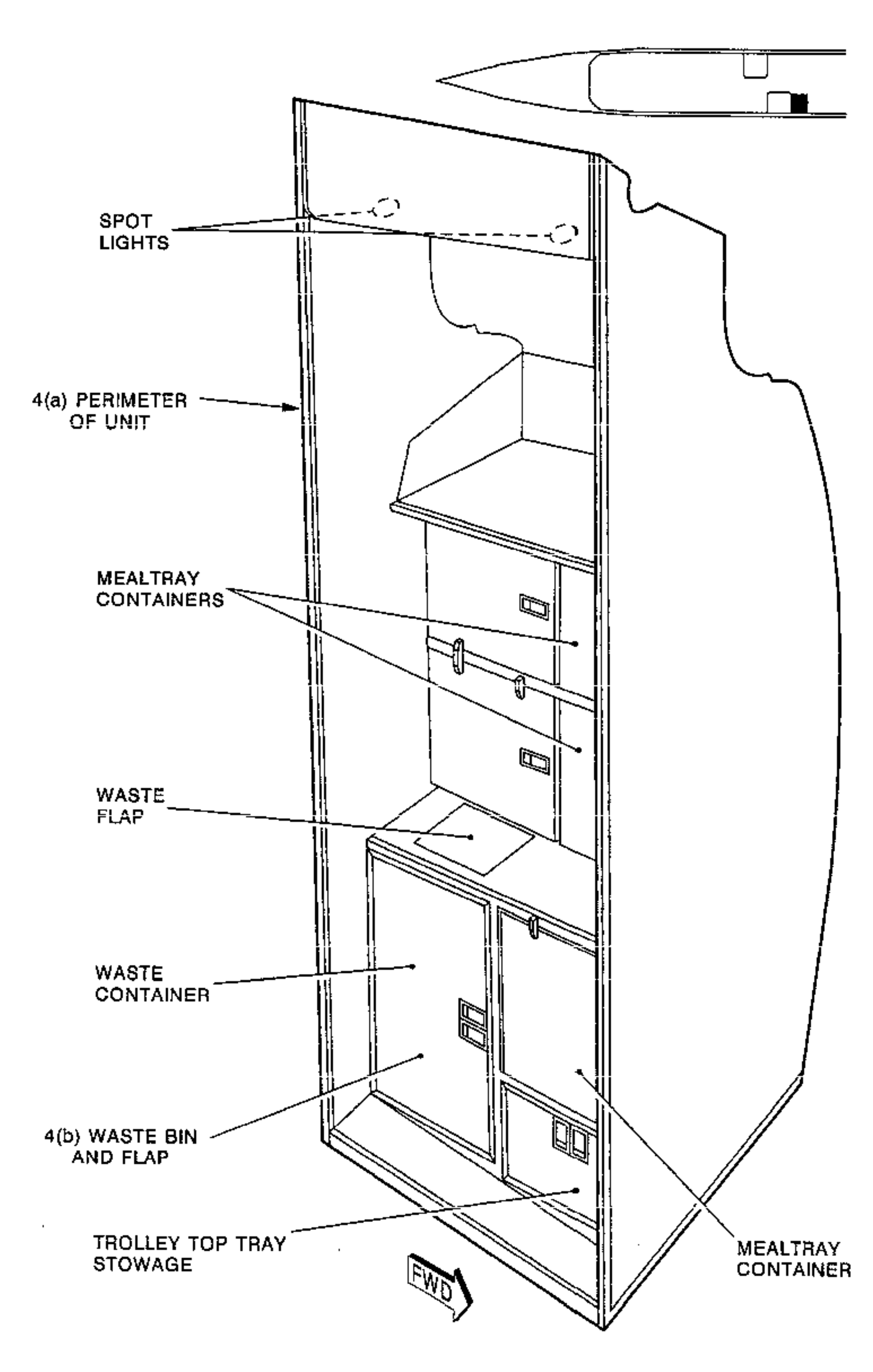
3(a) PERIMETER OF UNIT

FWD

CMB 25 30 00 7 AAMG 00

B

Galley No.3 (Sheet 3 of 7)
Figure 701

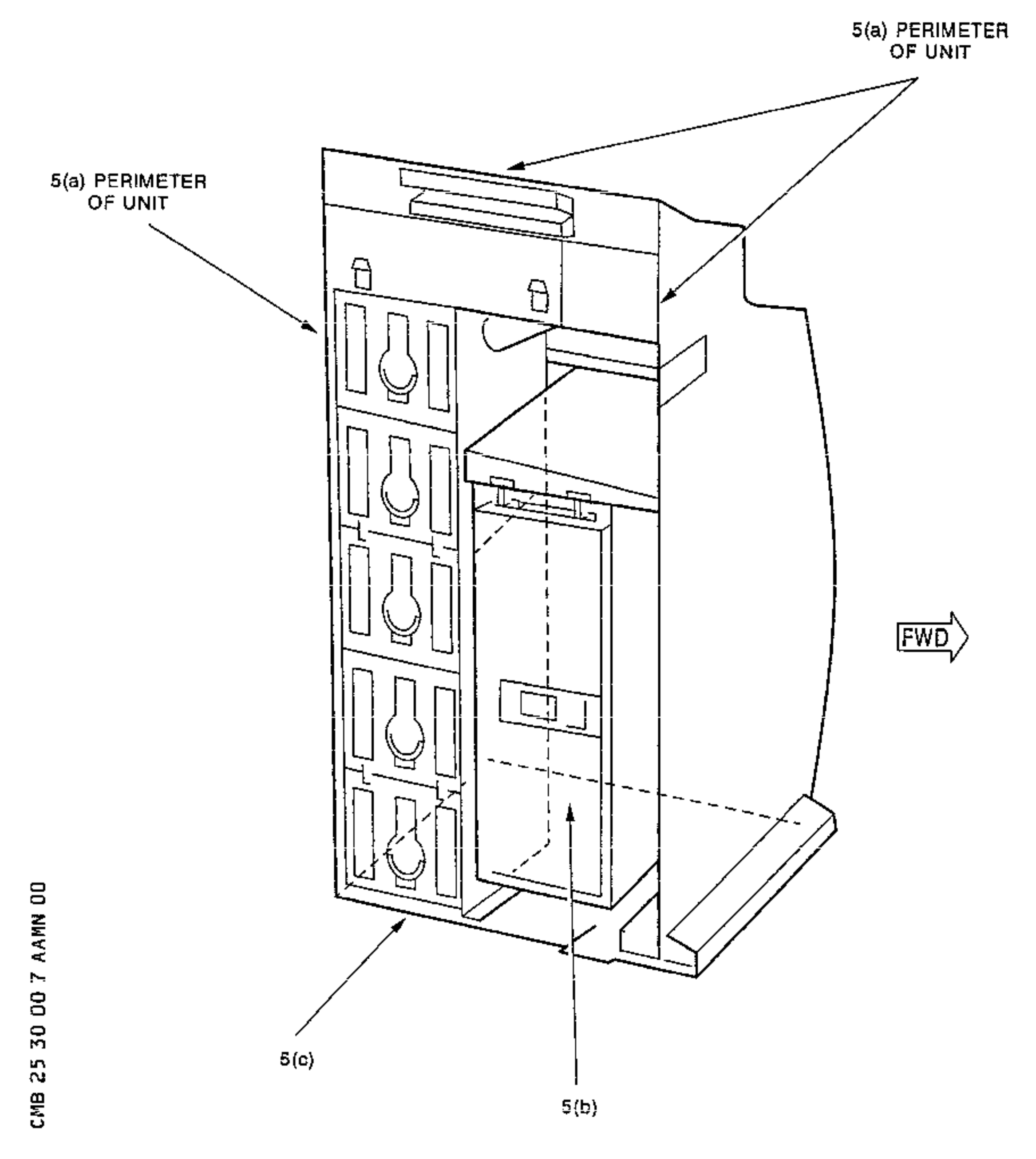


PRINTED IN ENGLAND

CMB 25 30 00 7 AAMK 00

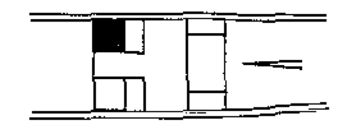
RB

Galley No.4 (Sheet 4 of 7)
Figure 701



B

Galley No.5 (Sheet 5 of 7)
Figure 701



6(a) PERIMETER

FWD

6(a) PERIMETER

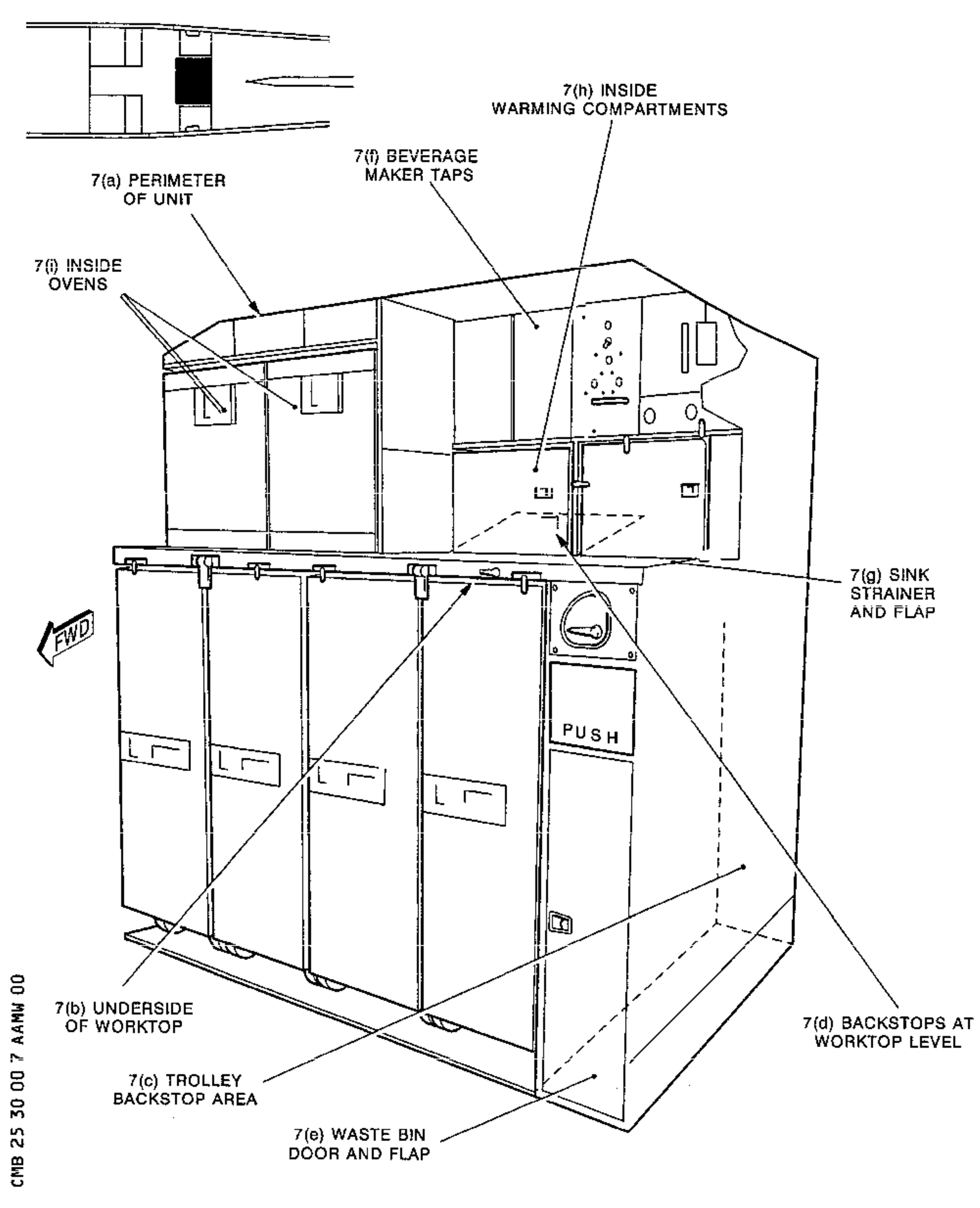
6(b)

6(c)

CMB 25 30 00 7 AAMS 00

B

Galley No.6 (Sheet 6 of 7)
Figure 701



PRINTED IN ENGLAND

RB

Galley No.7 (Sheet 7 of 7)
Figure 701

(a) Around the perimeter of the unit, where the seal is set back.

(b) The underside of the worktop.

(c) The area behind the trolley wheel backstop in the galley base.

(d) The waste bin compartment, including the door and flap.

(e) The taps on the beverage makers.

(f) The sink, strainer and the hinged flap over the sink.

(g) Inside the warming compartment.

(3) Galley 3 (Fig. 701 Sheet 3 of 7)

(a) Around the perimeter of the unit, where the seal is set back.

(4) Galley 4 (Fig. 701 Sheet 4 of 7)

(a) Around the perimeter of the unit, where the seal is set back.

(b) The waste bin compartment, including the door and flap.

(5) Galley 5 (Fig. 701 Sheet 5 of 7)

(a) Around the perimeter of the unit, where the seal is set back.

(b) The hidden area behind the Standard Unit compartments, accessible from the trolley compartment.

(c) The base of the lower Standard Unit compartment.

(6) Galley 6 (Fig. 701 Sheet 6 of 7)

As Galley 5.

(7) Galley 7 (Fig. 701 Sheet 7 of 7)

(a) Around the perimeter of the unit, where the seal is set back.

(b) The underside of the worktop.

(c) The hidden area behind the waste bin compartment accessible from the trolley compartment.

(d) Behind the backstops in the 2 compartments at worktop level.

(e) Waste bin compartment, including the door and flap.

(f) The taps of the beverage makers.

(g) The sink, strainer and the hinged flap over the sink.

(h) Inside warming compartments.

(i) Inside ovens.

(8) Rear Electronics Racks.

(a) Clean behind the decor panels either side of galley 7 that mask off the filters for the electronics racking. Clean out at floor level. It is unnecessary to remove decor panels.

4. <u>Disinfestation Procedure</u> (Ref. Fig. 702)

A. Equipment and Materials

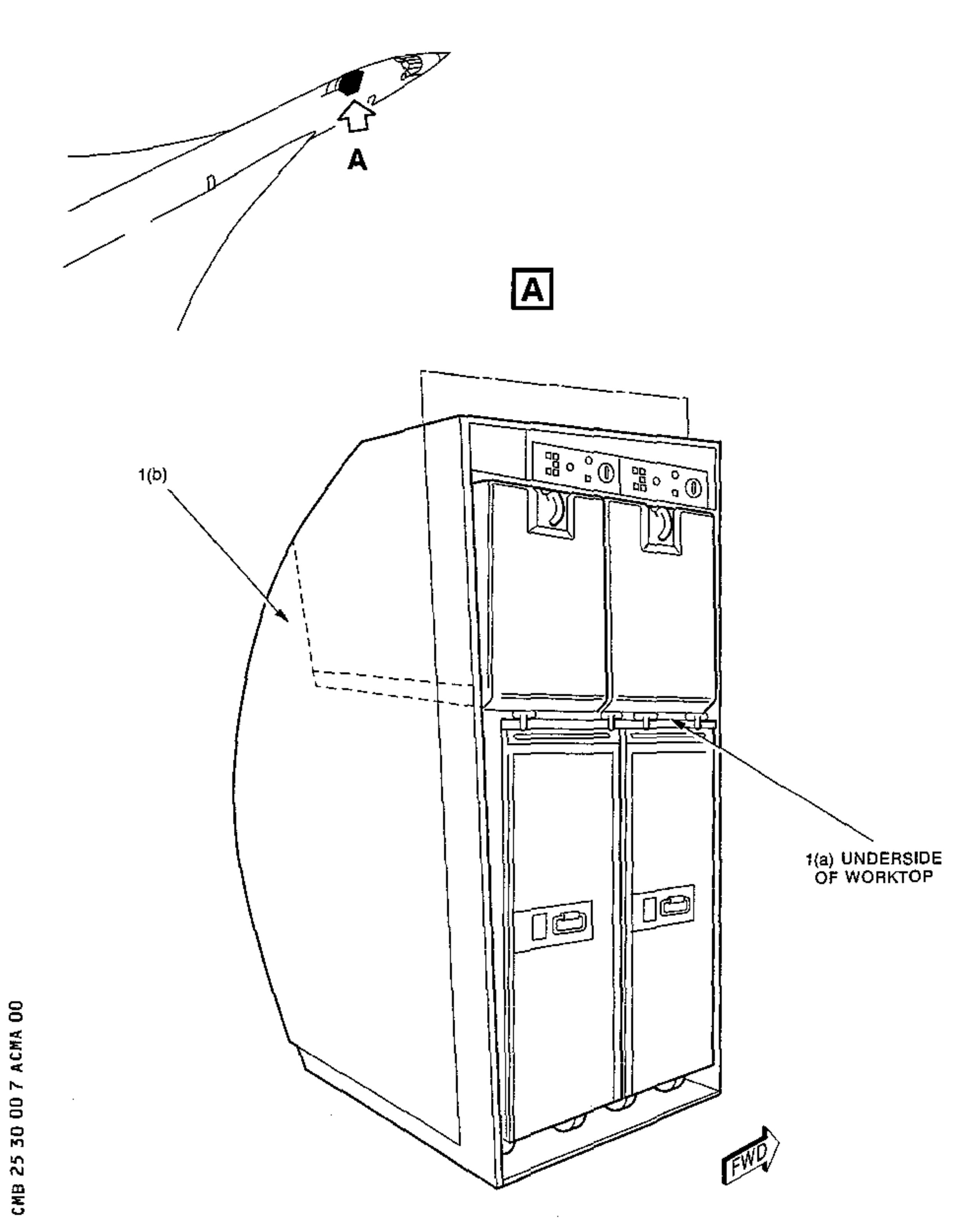
As per EMR 703.

B. Using the materials outlined in EMR 703 disinfect the galleys, paying particular attention to the areas outlined in Figs. 702 (Sheets 1 to 7).

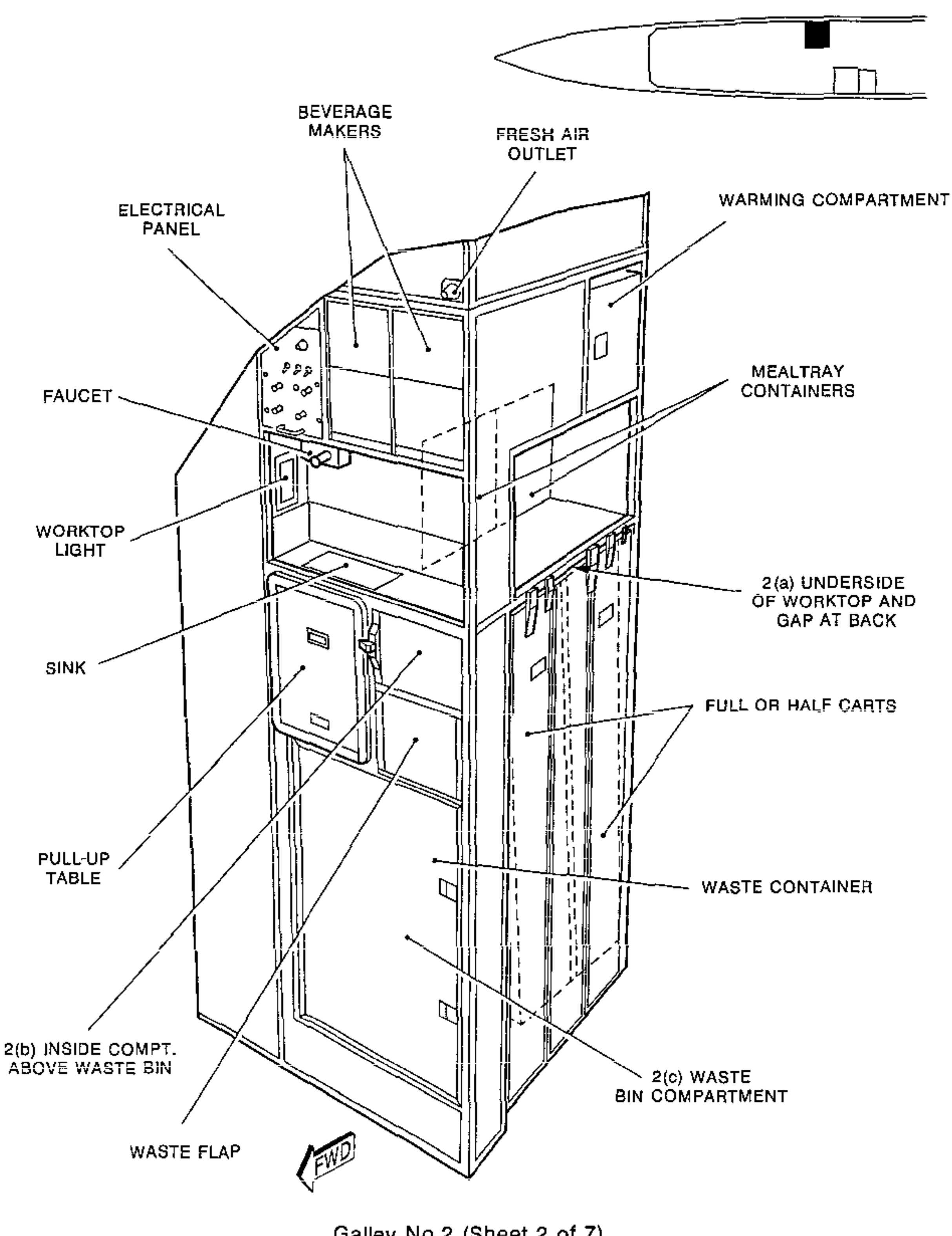
C. Procedure

(1) Galley 1 (Fig. 702 Sheet 1 of 7)

(a) The underside of the worktop.

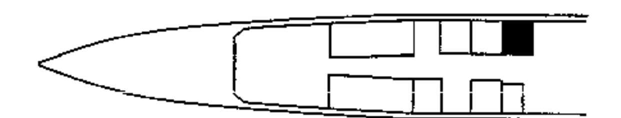


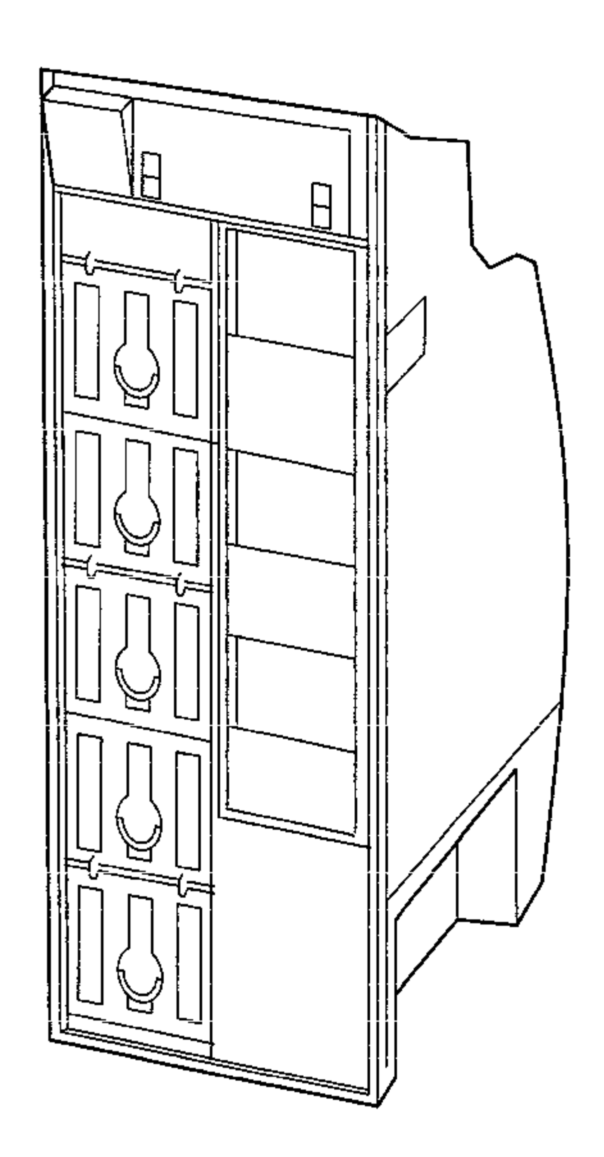
Galley No.1 (Sheet 1 of 7)
Figure 702



RB

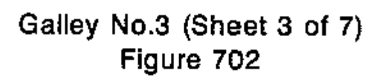
Galley No.2 (Sheet 2 of 7)
Figure 702

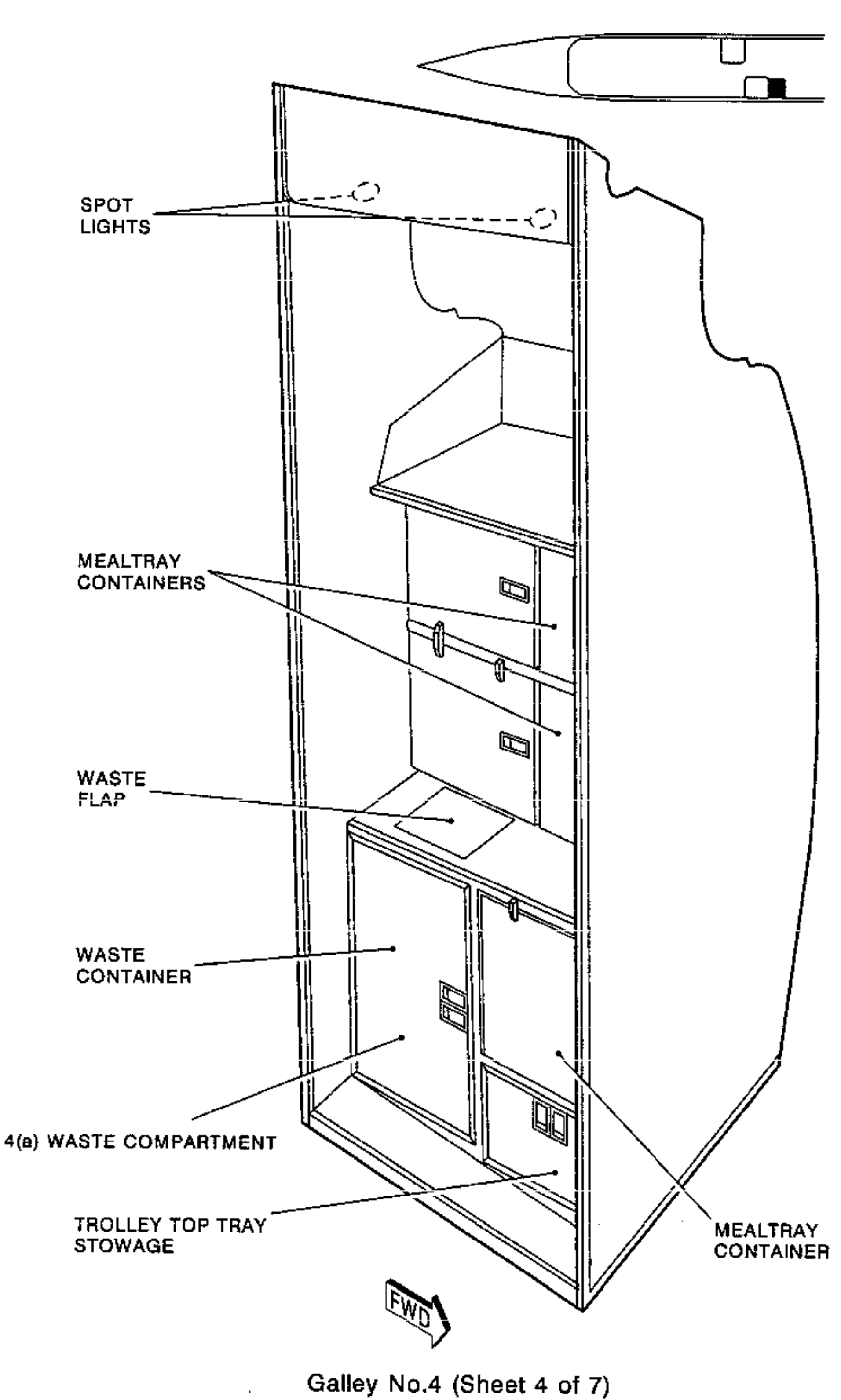




PRINTED IN ENGLAND

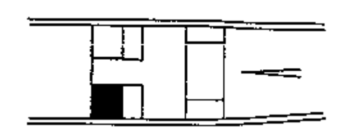
CMB 25 30 00 7' ACMG 00

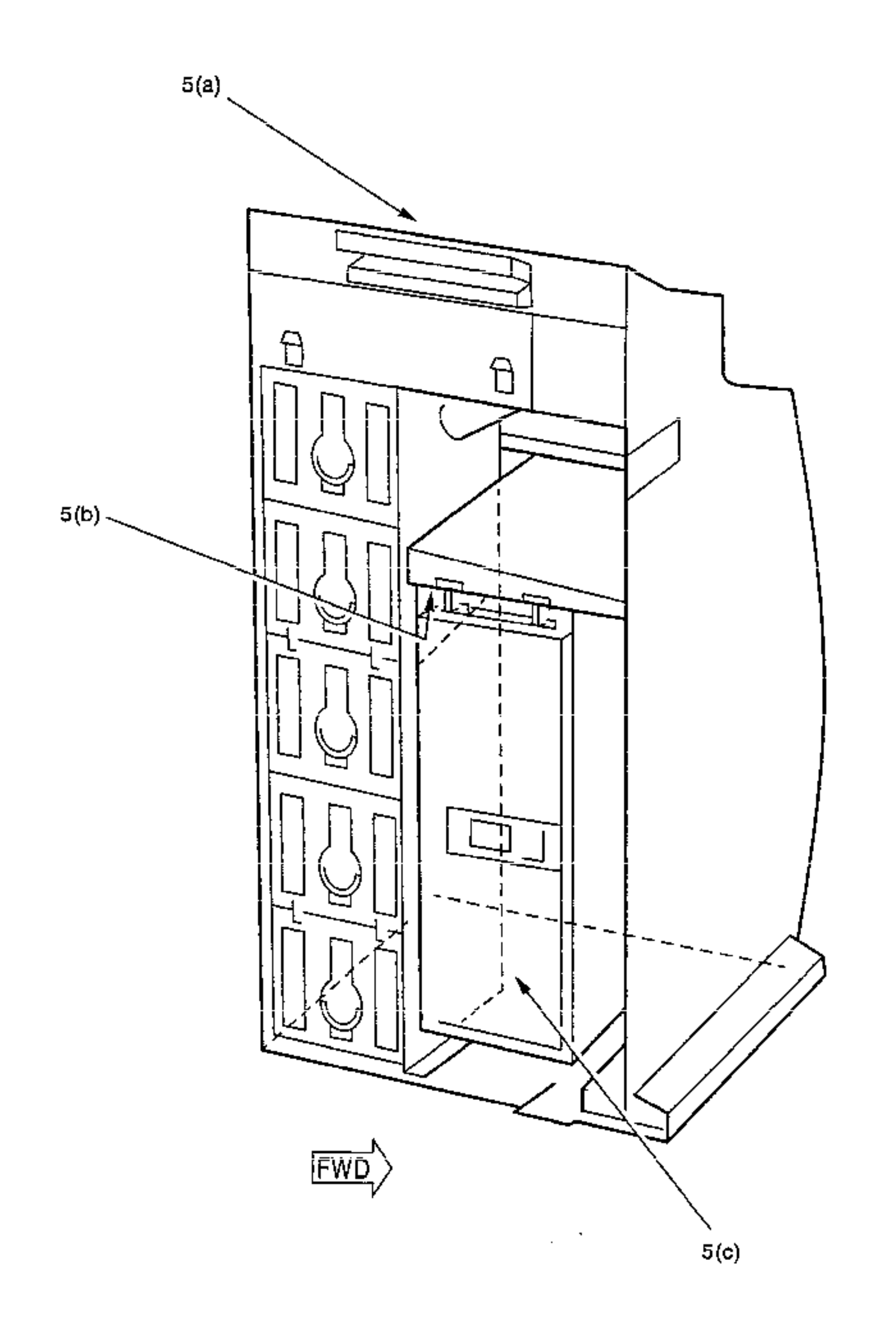

Galley No.3 (Sheet 3 of 7)
Figure 702



RB

Galley No.4 (Sheet 4 of 7)
Figure 702

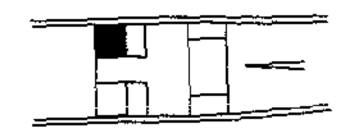


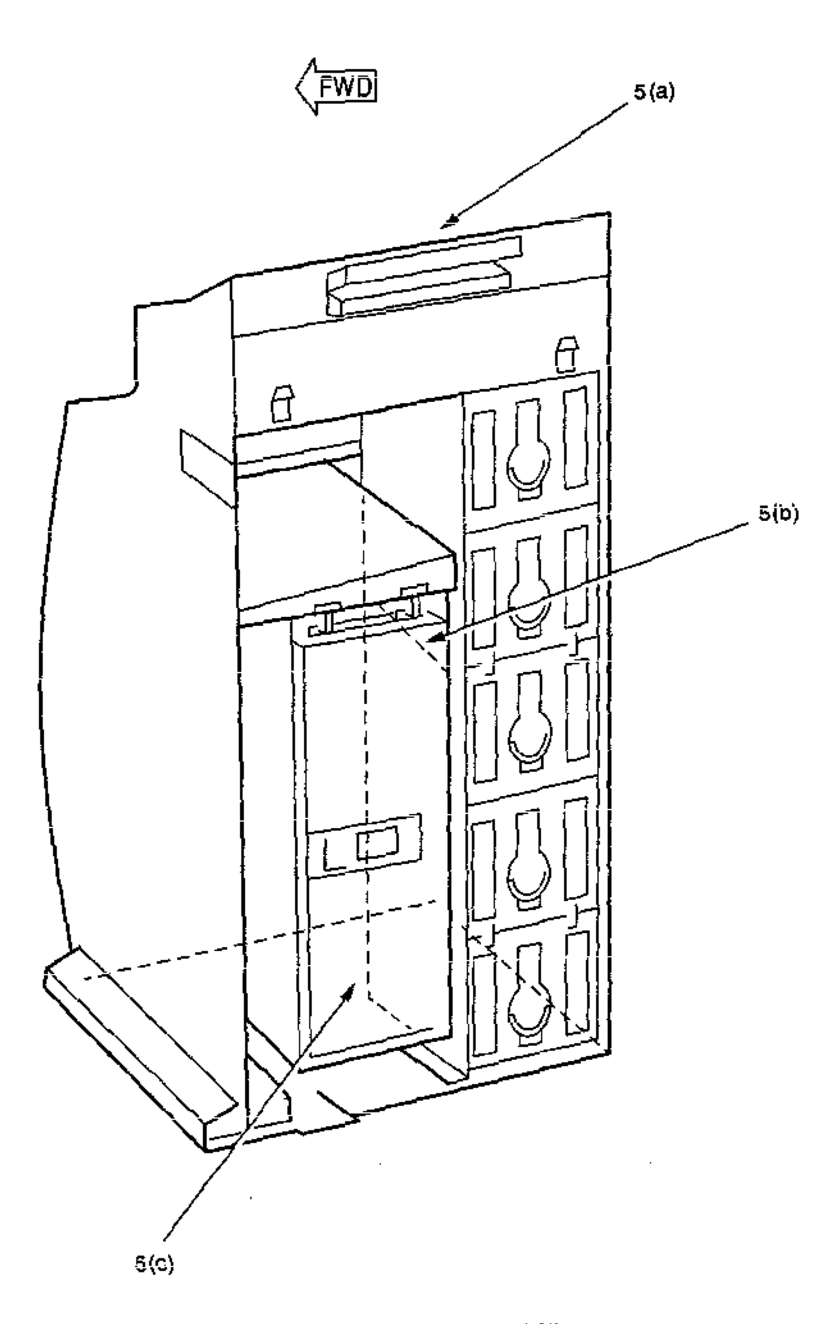


PRINTED IN ENGLAND

CMB 25 30 00 7 ACMN 00

Galley No.5 (Sheet 5 of 7)
Figure 702



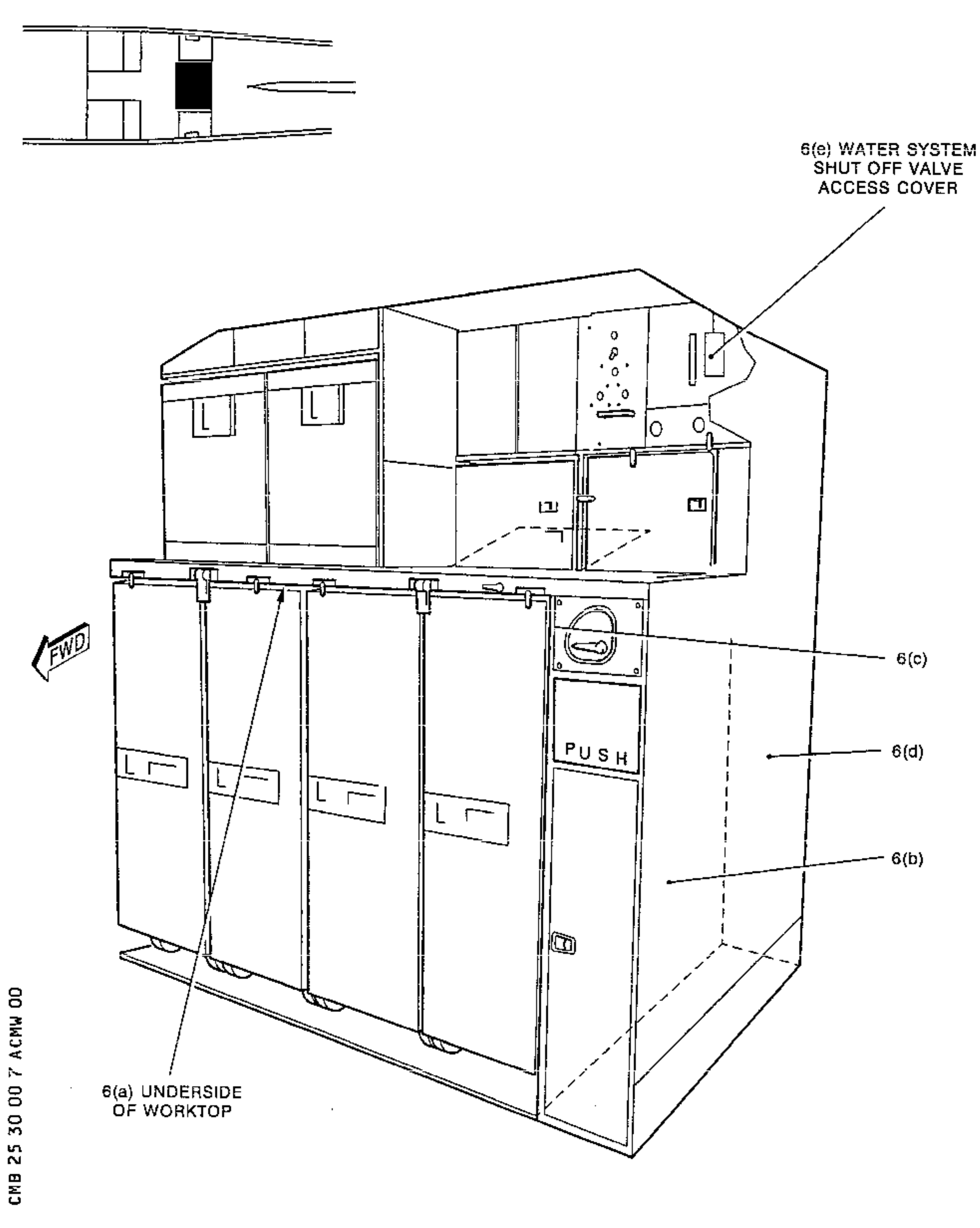


PRINTED IN ENGLAND

CMB 25 30 00 7 ACMS 00

R

Galley No.6 (Sheet 6 of 7)
Figure 702



CMB 25 30 00 7 ACMW 00

RB

Galley No.7 (Sheet 7 of 7)
Figure 702

(b) The hidden area behind the ovens accessible from the trolley compartment.

(2) Galley 2 (Fig. 702 Sheet 2 of 7)

(a) The underside of the worktop including the gap at rear of the galley, above the worktop.

(b) Inside the compartment above the waste bin, accessible by opening the access door in the trolley compartment.

(c) Waste bin compartment.

(3) Galley 3 (Fig. 702 Sheet 3 of 7)

No particular areas that require highlighting.

(4) Galley 4 (Fig. 702 Sheet 4 of 7)

(a) Waste bin compartment.

(5) Galley 5 and 6 (Fig. 702 Sheet 5 and 6 of 7)

(a) The area above the galley, through the gap between the unit and the aircraft ceiling.

(b) Inside the open section worktop support.

(c) The area behind the 'Standard Unit' compartments, accessible from the trolley compartment.

(6) Galley 7 (Fig. 702 Sheet 7 of 7)

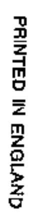
(a) The underside of the worktop.

(b) The waste bin compartment.

(c) Inside the compartment above the waste bin, accessible by opening the access door in the trolley compartment.

(d) The area behind the waste bin compartment accessible from the trolley compartment.

(e) Inside and behind the beverage maker compartment by opening the water system "SHUT OFF VALVE" access cover.



DRAIN LINE FILTER

ACCESS PANEL

CMB 25 30 00 7 AEMO 00

RB

Location of Galley No.2 Drain Line Filter
Figure 703

(7) Disinfest behind the decor panels either side of galley 7 that mask off the filters for the electronics racking. The gap around the outboard periphery and along the base can be used to direct the spray.

B. Conclusion

Because of the air/heat extraction system it is recommended that the space around the oven is kept clear. Therefore, if a visual check reveals that the space is blocked then the oven should be removed to allow cleaning.

5. Galley 2 Sink Drain Line Filter - Cleaning Procedure (Ref. Fig. 703)

A. Remove access panel by removing six screws.

B. Loosen wingnuts on filter housing.

C. Remove filter element complete with seal and wingnuts.

D. Remove stubborn debris from the filter element and flush clean under running water.

E. Replace filter element in housing, tighten and seal with the wingnuts.

F. Replace access panel, tighten the six attaching screws.

R

NO. 1 GALLEY - DESCRIPTION AND OPERATION

1. General

No.1 galley comprises forward and aft bulkheads and top and side panels which house a double oven, with controllers, and two meal tray trolleys. An electrical power supply is provided for the oven, and provision is made for the galley electrical load to be shed from the supplying generator if necessary. An air extraction system is incorporated for the oven. The galley is located immediately forward of the left-hand forward passenger door. Details of the oven and controllers are in 25-30-00.

2. Construction (Ref. Fig. 001)

The galley structure consists of a forward bulkhead, bolted to the aircraft forward electronics rack, an aft bulkhead, bolted to the stewards seat structure, the two bulkheads being joined by an outboard side panel, a top assembly and an oven shelf, which are all bolted to the bulkheads. The oven controllers are secured in the top assembly by bolts and anchor nuts, the oven is bolted to the oven shelf and the trolleys are stored below the worktop and restrained by latches. Access to the electrical terminal blocks is through an access panel in the outboard side panel.

3. Air Extraction

The air extraction system is for oven housing ventilation. The oven housing is connected to the aircraft air extraction system through a flexible hose and filter (Ref. 21-21-00 and 21-21-15). The flexible air extraction hose is secured to the oven housing with a clip and to the aircraft air extraction system by a bolted flange.

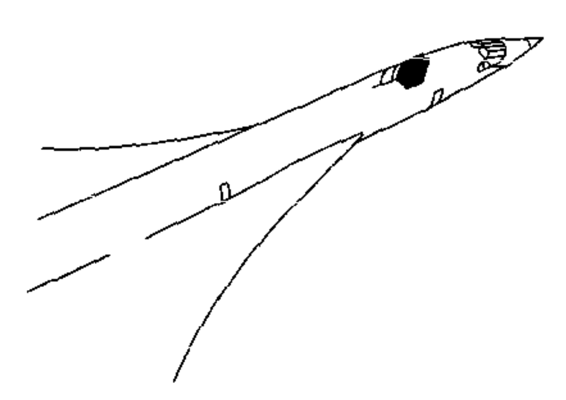
4. Electrical Power Supply

The electrical power supply for the galley is taken from No.2 main 200/115V AC busbar, through circuit breaker H1895 on circuit breaker panel 21-215.

5. Operation

A. Controls and Indicators (Ref. Fig. 002)

The controls and indicators for the galley are located on the front of the oven controllers, and on a circuit



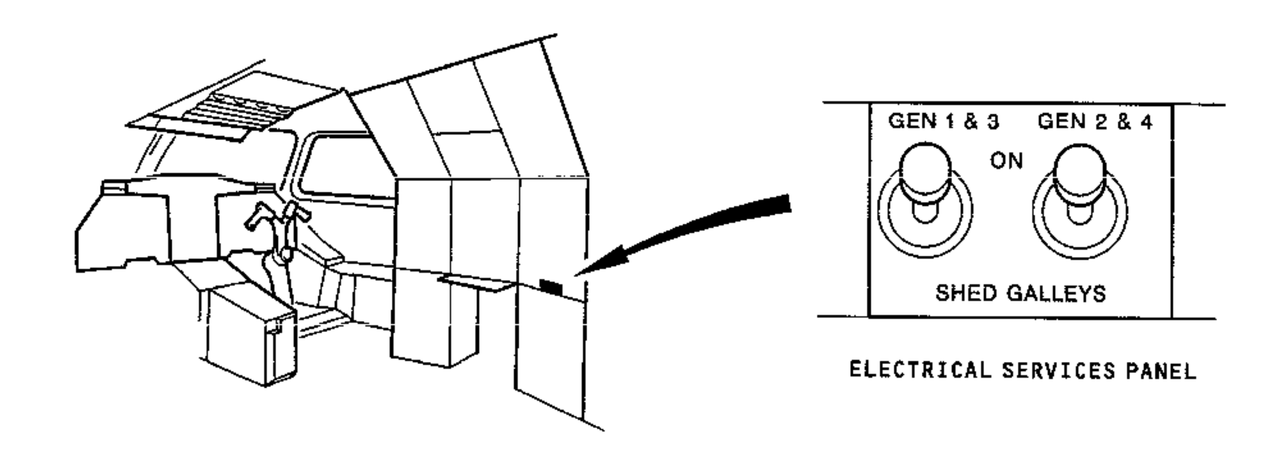
FACIA PANEL
OVEN CONTROLLERS
AFT BULKHEAD
OVENS
MEAL TRAY TROLLEYS
FLOOR PLATE

CMB 25 31 00 0 AAM0 00

R

No.1 Galley
Figure 001

R



ELECTRICAL SERVICES PANEL

HIGH
ON/ OFF
STAT
LOW
OVER HEAT
POWER
15
MOTOR
5
COOKING FINISHED
TIME
0
10
20
30
40
50

A OVEN CONTROLLER

A
A
FWD

CMB 25 31 00 0 ACM0 00

RB

No.1 Galley - Controls and Indicators
Figure 002

breaker panel and the electrical services panel in the flight compartment. Controls on the front of each oven controller are:

RB Power ON/OFF Switchlight

RB Temperature selection switchlights HIGH and LOW heat.

RB 0 - 60 minute timer (mechanical)

RB Main 15 A circuit breaker.

RB 5 A circuit breaker for the Fan motor.

Indicators on the front of each oven controller are:

RB

RB STAT thermostat cycle indicator switchlight.

RB

RB COOKING FINISHED warning lamp.

RB OVERHEAT (press to test) indicator switchlight.

RB

Controls in the flight compartment are:

On circuit breaker panel 21-215, NO.1 MAIN AC BUS GALLEY SUP circuit breaker.

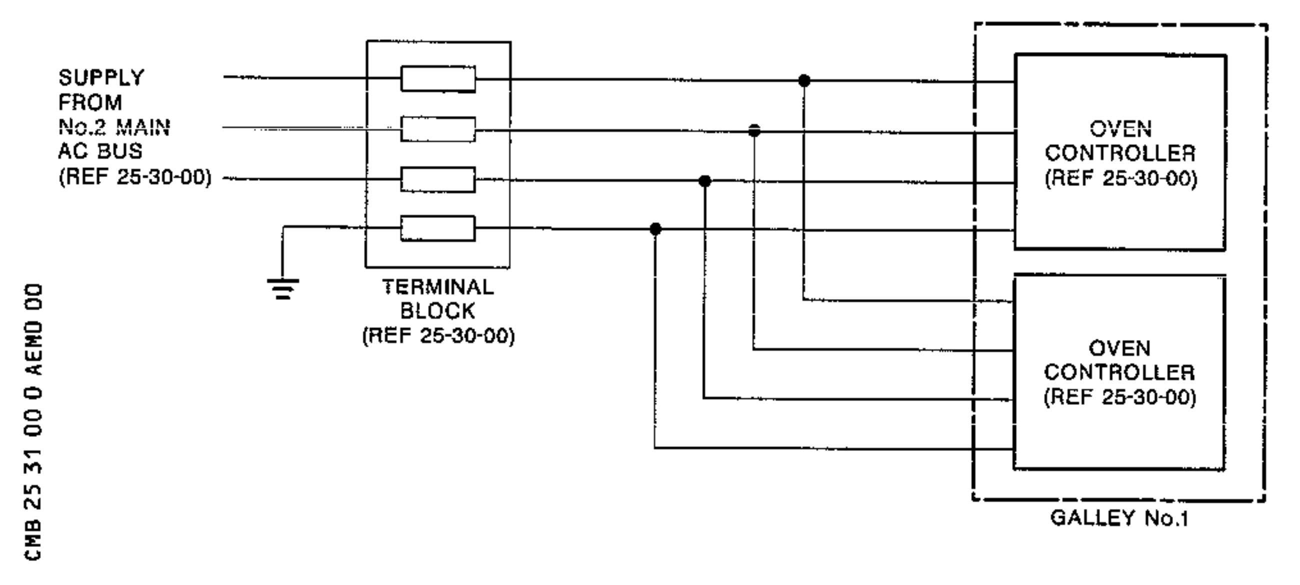
On the electrical services panel at the 3CM station, SHED GALLEYS switches GEN 1 & 3 and GEN 2 & 4.

B. Functional Description (Ref. Fig. 003)

Electrical power for the oven is taken from No.2 main a.c. busbar via a circuit breaker and oven contactor. The supply is connected to a terminal block in the aircraft sidewall. Details of the electrical circuits in the oven are in 25-30-00.

Provision is made for shedding the galley load from the aircraft electrical distribution system, by setting the GEN 2 & 4 switch to SHED GALLEYS, to automatically cut the galley load from the supplying generator (Ref. 25-30-00).

CMB 25 31 00 0 AEMD 00



Galley No.1 - Simplified Electrical Schematic Diagram
Figure 003

R **ON A/C 001-005,

No.1 GALLEY - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

No.1 galley is immediately forward of the left-hand forward passenger door. The galley must be partially dismantled for removal from, or installation in, the aircraft.

2. No.1 Galley (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clip	-
Sealant PR1422BT(Ref.20-30-0o.No.366)	-
Sealant JC5-A (Ref.20-30-00 No.382)	-
Adhesive CAF 4 (Ref.20-30-00,No.313)	-
General purpose cleaning solvent BACM 302 (Ref.20-30-00, No.473)	-
Tape, self adhesive waterproof - 3 in (76 mm) wide	CM 717

B. Prepare to Remove

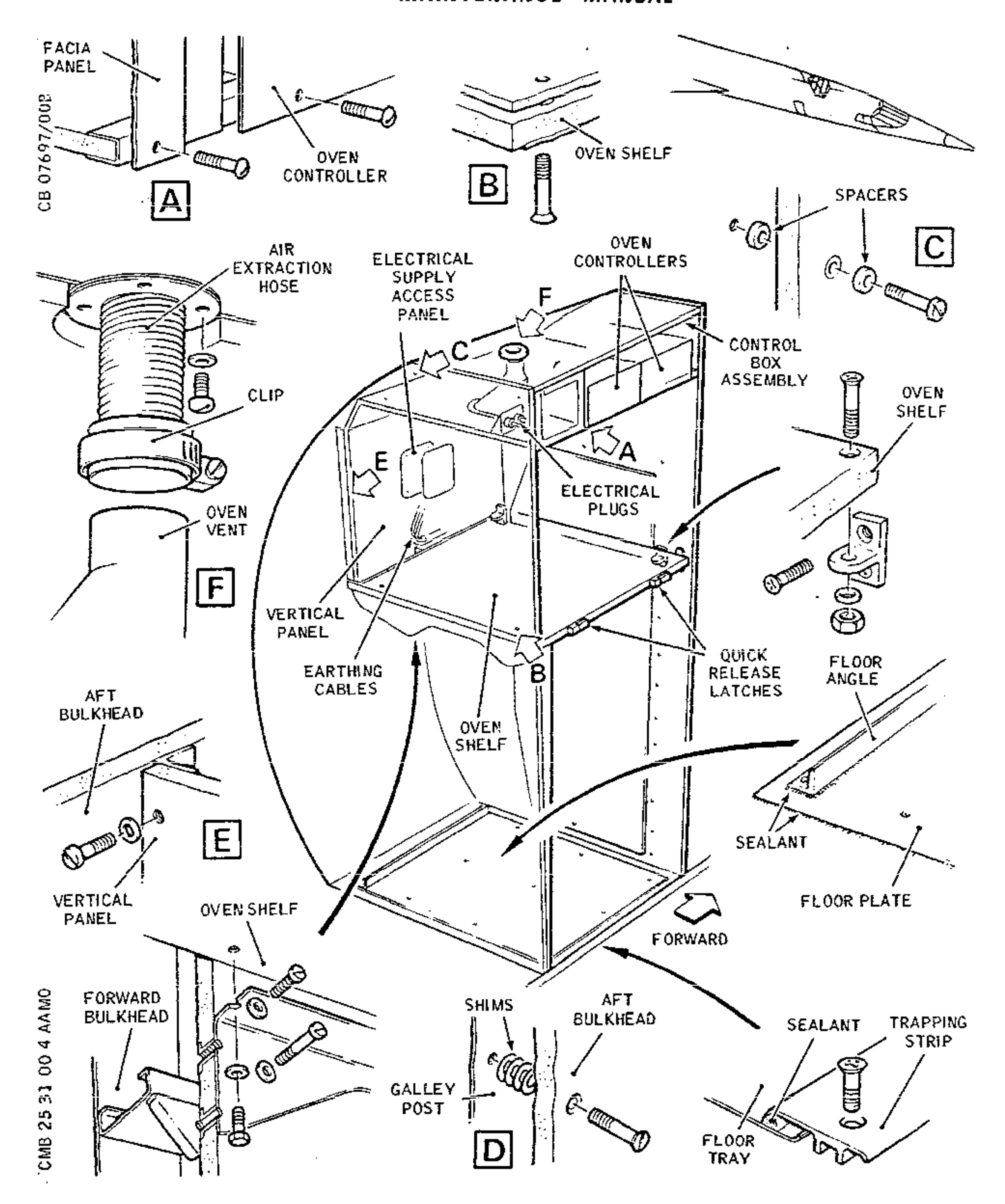
(1) Check that the POWER switch on the front face of each oven controller is set to OFF.

(2) Electrically isolate the galley by tripping No.2 MAIN AC BUS GALLEY SUP circuit breaker H1895 on panel 21-215 in the flight compartment, and fit a safety clip.

(3) Release the quick release latches and remove the two meal tray trolleys.

C. Remove.

(1) Remove the three screws securing the aft facia panel and remove the panel to give access to the two oven electrical plugs. Disconnect the plugs (Ref.Detail A).



No.1 Galley - Installation
Figure 401

(2) Remove the four screws securing the double oven to the oven shelf; remove the double oven. (Ref.Detail B).

NOTE: The screws are removed from below the oven shelf.

CAUTION: THE OVEN ASSEMBLY WEIGHS APPROXIMATELY 100 lbs (45.4 kg)

(3) Remove the screws securing the vertical panel to the forward bulkhead angle, the aft bulkhead angle and the control box assembly, and remove the vertical panel (Ref.Detail E).

(4) Remove the rectangular access panel on the outboard side of the galley and disconnect the galley electrical supply at the aircraft interface terminal block.

(5) Disconnect the two earthing cables from the controllers at the earthing bracket on the outboard side of the oven shelf.

(6) Remove the screws securing the two controllers to the face of the control box assembly, remove the electrical sockets from the mounting bracket; remove the controllers. (Ref. Detail A).

(7) Disconnect the air extraction hose from the oven vent by loosening the the hose clip. (Ref.Detail F).

(8) Remove the four screws and washers securing the control box assembly to the forward bulkhead and the four shoulder bolts and eight spacers securing the aft side to the bulkhead; remove the control box assembly. (Ref. Detail C).

(9) Remove the four screws and washers securing the extraction hose outlet to the air box above the galley space; remove the extraction hose. (Ref.Detail F).

(10) Remove the two special bolts, five bolts, washers and nuts securing the oven shelf to the brackets on the fore and aft bulkheads and remove the oven shelf.

(11) Remove the six bolts and the shim washers securing the aft bulkhead to the galley posts; remove the bulkhead. Note the position of the shim washers. (Ref. Detail D).

(12) Strip the self-adhesive waterproof tape away from forward bulkhead-to-floor tray junction and the sidewall-to-floor tray junction. Clean the area with general purpose cleaning solvent.

(13) Remove the four bolts securing the two T-brackets and the twenty five bolts securing the forward bulkhead to the electronics rack assembly; remove the bulkhead.

(14) Remove the eight bolts securing the floor angle and the nine screws securing the floor plate to the floor through the floor tray. Remove the floor angle and floor plate. Remove the sealing compound from the floor tray using general purpose cleaning solvent.

(15) Remove the trapping strip from the gangway side of the floor tray and remove the floor tray.

(16) Remove the sealing compound from the aircraft floor and clean the area using general purpose cleaning solvent.

D. Install

(1) Observe the electrical safety precautions.

(2) Inspect the foam-rubber seal glued to the floor along the aft edge of the electronics rack. If the seal is compressed or damaged, replace it with a new seal secured to the floor with adhesive.

(3) Position the forward bulkhead on the floor sealing strip and secure the bulkhead to the electronics rack assembly with twenty-five countersunk head bolts.

(4) Attach the two oven shelf support brackets through the forward bulkhead and into the mounting blocks on the electronic rack assembly with four bolts. Ensure that the two bolts securing the inboard bracket form an electrical bond (Ref.20-27-11).

(5) Position the floor tray ensuring alignment with the floor plate screw holes. Seal the edge of the floor tray all round with sealant (Ref.20-22-28), then apply self-adhesive waterproof tape to seal the forward bulkhead and sidewall-to-floor tray junctions.

(6) Position the aft bulkhead on the floor tray

and secure it to the galley posts with two panhead and four countersunk head bolts; ensure that the shim washers are returned to their correct positions. Apply a bead of sealant along the bulkhead-to-floor tray junction (Ref. 20-22-28).

(7) Fit the gangway side trapping strip to overlap the edge of the floor tray. Apply a bead of sealant between the trapping strip and floor tray, (Ref.20-22-28), and secure the strip to the floor with screws.

(8) Position the oven shelf, secure the aft end to the aft bulkhead bracket with three bolts, washers and nuts and the forward end to the T-brackets on the forward bulkhead with two bolts, washers and nuts ensuring the two bolts form an electrical bond (Ref. 20-27-11). Install the two special bolts securing the oven shelf to the forward bulkhead, hinging down the shelf frame to insert the lower bolt.

(9) Attach the air extraction hose flange to the air box above the galley space with four screws and washers (Ref. Detail F).

(10) Position the control box assembly, secure the forward side of the box to the forward bulkhead with four washers and screws, and the aft side of the box to the aft bulkhead with eight spacers and four shoulder bolts (Ref. Detail C).

(11) Connect the air extraction hose to the oven vent and tighten the hose clip (Ref. Detail F).

(12) Install the two oven controllers. Attach the two electrical sockets to the mounting bracket and secure the controllers to the control box assembly by four mushroom headed bolts.

(13) Connect the two earth cables from the controllers to the earthing bracket on the outboard side of the oven shelf.

(14) Reconnect the galley wiring at the aircraft interface terminal block at the outboard side of the galley; replace the access panel.

(15) Position the outboard vertical panel. Secure it to the forward and aft bulkhead angles with six pan

head screws and washers. Secure the top flange of the panel to the top box with three pan head screws.

(16) Install the double oven and attach it to the oven shelf with four screws and washers inserted from below the shelf.

(17) Check that the electrical sockets and plugs are clean and undamaged. Connect the oven plugs to the sockets. Attach the aft facia panel with three mushroom head bolts. (Ref. Detail A).

(18) Position the floor plate on the floor tray and secure it with nine countersunk-head screws. Wet-assemble the screws (Ref. 20-22-14).

(19) Position the floor angle outboard on the floor plate and secure it with eight screws. Wet assemble the screws to 20-22-14.

(20) Seal the edges of the floor plate and the floor angle with sealant (Ref. 20-22-28).

E. Conclusion.

(1) Check that the POWER switch on each oven controller is set to OFF, and reset the circuit breaker previously tripped.

(2) Replace the two meal tray trolleys and secure with the quick release latches.

(3) Carry out the checks given in 25-31-00, Adjustment/Test.

R **ON A/C 006-007,

No.1 GALLEY - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

No.1 galley is immediately forward of the left-hand forward passenger door. The galley must be partially dismantled for removal from, or installation in, the aircraft.

2. No.1 Galley (Ref. Fig. 401)

A. Equipment and Materials

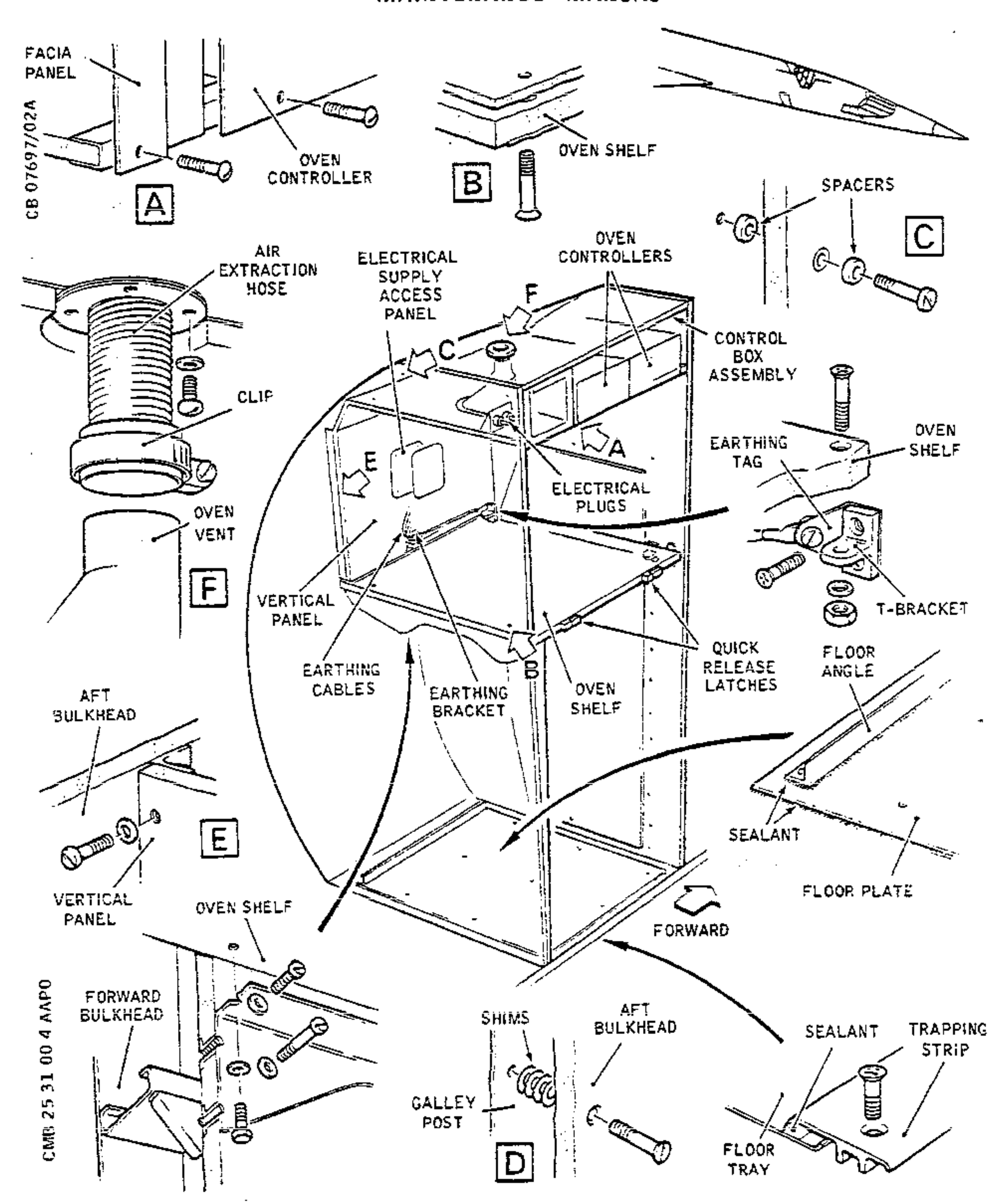
DESCRIPTION	PART NO.
Circuit breaker safety clip	-
Sealant PR1422BT (Ref. 20-30-00 No.366)	-
Sealant JC5-A (Ref. 20-30-00 No.382)	-
Adhesive CAF 4 (Ref. 20-30-00 No.313)	-
General purpose cleaning solvent BACM 302 (Ref. 20-30-00, No.473)	-
Tape, self adhesive waterproof - 3 in (76 mm) wide (Ref. 20-30-00, No.161)	CM717

B. Prepare to Remove

(1) Check that the POWER switch on the front face of each oven controller is set to OFF.

(2) Electrically isolate the galley by tripping No.2 MAIN AC BUS GALLEY SUP circuit breaker H1895 on panel 21-215 in the flight compartment, and fit a safety clip.

Printed in England



No.1 Galley - Installation
Figure 401

(3) Release the quick-release latches and remove the two meal tray trolleys.

C. Remove (Ref. Fig. 401)

(1) Remove the three screws securing the aft facia panel and remove the panel to give access to the two oven electrical plugs. Disconnect the plugs (Ref. Detail A).

(2) Remove the four screws securing the double oven to the oven shelf; remove the double oven. (Ref. Detail B).

NOTE: The screws are removed from below the oven shelf.

CAUTION: THE OVEN ASSEMBLY WEIGHS APPROXIMATELY 100 lbs (45.4 kg).

(3) Remove the screws securing the vertical panel to the forward bulkhead angle, the aft bulkhead angle and the control box assembly, and remove the vertical panel (Ref. Detail E).

(4) Remove the rectangular access panel on the outboard side of the galley and disconnect the galley electrical supply at the aircraft interface terminal block.

(5) Disconnect the bonding jumper leading from the airframe earthing tag, and the two earth cables leading from the oven controllers, at the earthing bracket mounted on the outboard side of the oven shelf.

(6) Remove the screws securing the two controllers to the face of the control box assembly, remove the electrical sockets from the mounting bracket; remove the controllers. (Ref. Detail A).

(7) Disconnect the air extraction hose from the oven vent, by loosening the hose clip. (Ref. Detail F).

(8) Remove the four screws and washers securing the control box assembly to the forward bulkhead and the four shoulder bolts and eight spacers securing the aft side to the bulkhead; remove the control box assembly. (Ref. Detail C).

(9) Remove the four screws and washers securing the

extraction hose outlet to the air box above the galley space; remove the extraction hose. (Ref. Detail F).

(10) Remove the two special bolts, five bolts, washers and nuts securing the oven shelf to the brackets on the fore and aft bulkheads and remove the oven shelf.

(11) Remove the six bolts and the shim washers securing the aft bulkhead to the galley posts; remove the bulkhead. Note the position of the shim washers. (Ref. Detail D).

(12) Strip the self-adhesive waterproof tape away from the forward bulkhead-to-floor tray junction and the sidewall-to-floor tray junction. Clean the area with general purpose cleaning solvent.

(13) Remove the four bolts securing the two T-brackets and recover the earthing tag and bonding braid assembly from between the outboard T-bracket and the forward bulkhead.

(14) Remove the twenty five bolts securing the forward bulkhead to the electronics rack assembly; remove the bulkhead.

(15) Remove the eight bolts securing the floor angle and the nine screws securing the floor plate to the floor, through the floor tray. Remove the floor angle and floor plate. Remove the sealing compound from the floor tray using general purpose cleaning solvent.

(16) Remove the trapping strip from the gangway side of the floor tray and remove the floor tray.

(17) Remove the sealing compound from the aircraft floor and clean the area using general purpose cleaning solvent.

D. Install (Ref. Fig. 401)

(1) Observe the electrical safety precautions.

(2) Inspect the foam-rubber seal glued to the floor along the aft edge of the electronics rack. If the seal is compressed or damaged, replace it with a new seal secured to the floor with adhesive.

(3) Position the forward bulkhead on the floor sealing

strip and secure the bulkhead to the electronics rack assembly with twenty-five countersunk head bolts.

(4) Attach the two oven-shelf support T-brackets through the forward bulkhead and into the mounting blocks on the electronic rack assembly with four bolts. Ensure that the earthing tag is interposed between the outboard tag and the bulkhead and that a good electrical bond is formed (Ref. 20-27-11).

NOTE: The outboard T-bracket has a thinner base to accommodate the earthing tag.

(5) Position the floor tray ensuring alignment with the floor plate screw holes. Seal the edge of the floor tray all round with sealant (Ref. 20-22-28), then apply self-adhesive waterproof tape to seal the forward bulkhead and sidewall-to-floor tray junctions.

(6) Position the aft bulkhead on the floor tray and secure it to the galley posts with two panhead and four countersunk head bolts; ensure that the shim washers are returned to their correct positions. Apply a bead of sealant along the bulkhead-to-floor tray junction (Ref. 20-22-28).

(7) Fit the gangway side trapping strip to overlap the edge of the floor tray. Apply a bead of sealant between the trapping strip and floor tray, (Ref. 20-22-28), and secure the strip to the floor with screws.

(8) Position the oven shelf, secure the aft end to the aft bulkhead bracket with three bolts, washers and nuts and the forward end to the T-brackets on the forward bulkhead with two bolts, washers and nuts. Install the two special bolts securing the oven shelf to the forward bulkhead, hinging down the shelf frame to insert the lower bolt.

(9) Attach the air extraction hose flange to the air box above the galley space with four screws and washers (Ref. Detail F).

(10) Position the control box assembly, secure the forward side of the box to the forward bulkhead with four washers and screws, and the aft side of the box to the aft bulkhead with eight spacers and four shoulder bolts (Ref. Detail C).

(11) Connect the air extraction hose to the oven vent and tighten the hose clip (Ref. Detail F).

(12) Install the two oven controllers. Attach the two electrical sockets to the mounting bracket and secure the controllers to the control box assembly by four mushroom headed bolts.

(13) Connect the two earth cables from the oven controllers, and the bonding jumper from the airframe earthing tag, to the earthing bracket on the outboard side of the oven shelf. Ensure a good electrical bond is formed (Ref. 20-27-11).

(14) Reconnect the galley wiring at the aircraft interface terminal block at the outboard side of the galley; replace the access panel.

(15) Position the outboard vertical panel. Secure it to the forward and aft bulkhead angles with six pan head screws and washers. Secure the top flange of the panel to the top box with three pan head screws.

(16) Install the double oven and attach it to the oven shelf with four screws and washers inserted from below the shelf.

(17) Check that the electrical sockets and plugs are clean and undamaged. Connect the oven plugs to the sockets. Attach the aft facia panel with three mushroom head bolts. (Ref. Detail A).

(18) Position the floor plate on the floor tray and secure it with nine countersunk-head screws. Wet-assemble the screws (Ref. 20-22-14).

(19) Position the floor angle outboard on the floor plate and secure it with eight screws. Wet assemble the screws to 20-22-14.

(20) Seal the edges of the floor plate and the floor angle with sealant (Ref. 20-22-28).

E. Conclusion

(1) Check that the POWER switch on each oven controller is set to OFF, and reset the circuit breaker previously tripped.

(2) Replace the two meal tray trolleys and secure with the quick-release latches.

(3) . Carry out the checks given in 25-31-00, Adjustment/Test.

R

NO.1 GALLEY - ADJUSTMENT/TEST

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

1. General

The tests detailed below are to enable the galley air conditioning (extraction) and electrical systems to be proved. Controls and indicators which are used during the tests are on the oven controllers, above the ovens, and on the equipment bay cooling panel at the 3CM station.

2. Air Conditioning (Extraction) System Test (Ref. Fig. 501)

A. Equipment and Materials

DESCRIPTION	PART NO.
Genie (Mini) oil free smoke generator	Concept Engineering

B. Prepare to Test

(1) Ensure that suitable "POWER ON" placards are prominently displayed on the aircraft.

(2) Make available electrical ground power as detailed in 24-41-00.

(3) Ensure that the air conditioning (extraction) system has been tested in accordance with 21-21-00, Adjustment/Test.

C. Test

(1) At the 3CM station, set the forward rack extract fans control switch, on the equipment bay cooling panel, to 'AUTO'.

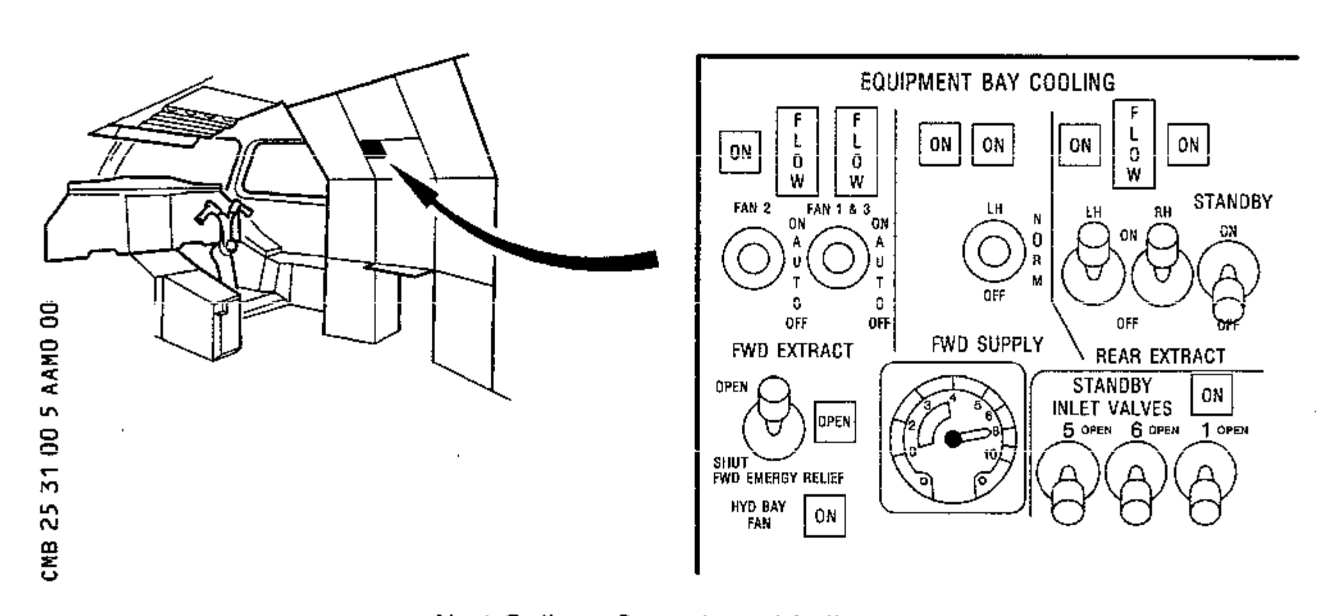
(2) Ensure that the following circuit breakers are closed:

A

FWD

A

HIGH
ON/
OFF
STAT
LOW
OVER
HEAT
POWER
15
MOTOR
5
COOKING
FINISHED
TIME
0
10
20
30
40
50



R No.1 Galley - Controls and Indicators
Figure 501

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
LH FWD SUPPLY FAN SUP & CONT	13-215	H1181	A1
RH FWD SUPPLY FAN SUP & CONT	14-216	2H1181	A20
REAR FLOW & LH FWD AIR SUP & REAR FAN IND	5-213	H1186	C9
FWD FLOW & RH FWD AIR SUP & EXTRT FAN IND	5-213	H1187	C8

(3) Operate the two forward electronic rack air extract fans and, using the smoke generator, check that air passes from the vestibule into the space between the oven and the oven aperture.

D. Conclusion

(1) Disconnect electrical ground power as detailed in 24-41-00.

(2) Remove "POWER ON" warning placards.

3. Operation Test Galley Electrical System (Ref. Fig. 501)

A. Prepare to Test

(1) Ensure that suitable "POWER ON" placards are prominently displayed on the aircraft.

(2) Make available electrical ground power as detailed in 24-41-00.

(3) At the oven controller on the galley, check that the circuit breaker buttons indicate that the breakers are open, and check that the POWER switch is at "OFF".

(4) Close NO.2 MAIN AC BUS GALLEY SUP circuit breaker H1895 on panel 21-215.

B. Test

NOTE: The following tests are to be carried out on both left-hand and right-hand ovens.

(1) Set or check setting of 15 A circuit breaker, on the oven controller.

(2) Set master light switch to 'ON' position, check power (Red) light is on.

(3) Turn timer knob to zero time.

(4) Set or check setting of 5 A circuit breaker, and check the following:

(a) Buzzer gives audible warning signal and warning lamp is lit.

(b) Fan motor in oven is operating.

(c) When 'Press-to-Test' overheat (Red) light knob is pressed the light is 'ON' and when released, the light is 'OFF'.

(d) 'STAT' light (White) is 'OFF'.

(5) Turn timer knob to approx. 5 minutes duration and check that:

(a) Buzzer is off.

(b) Fan motor is still operating.

(c) 'STAT' light (White) is 'ON'.

(d) Heat is being circulated around oven interior.

(6) Check when timer knob returns to zero time, that:

(a) Buzzer gives audible signal, 'COOKING FINISHED' warning lamp illuminated.

(b) 'STAT' light (White) is 'OFF'

(c) Fan motor is still operating.

C. Conclusion

(1) On the over controller, set the POWER switch to 'OFF'.

(2) Open No.2 MAIN AC BUS GALLEY SUP circuit breaker H1895 on panel 21-215.

(3) Disconnect electrical ground power as detailed in 24-41-00.

(4) Remove "POWER ON" warning placards.

R

OVEN CONTROLLER (No.1 GALLEY) - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

Each compartment of the double oven is controlled by its own controller, located above the oven in the top section of the galley. The controller is secured by screws and anchor nuts and is electrically connected to the appropriate oven compartment and to the aircraft electrical supply.

2. Oven Controller (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-

B. Prepare

(1) Check that the POWER switch on the front face of each oven controller is set to "OFF".

(2) Electrically isolate the galley by tripping NO.2 MAIN AC BUS GALLEY SUP circuit breaker H1895 on panel 21-215 in the flight compartment, and fit a safety clip.

R

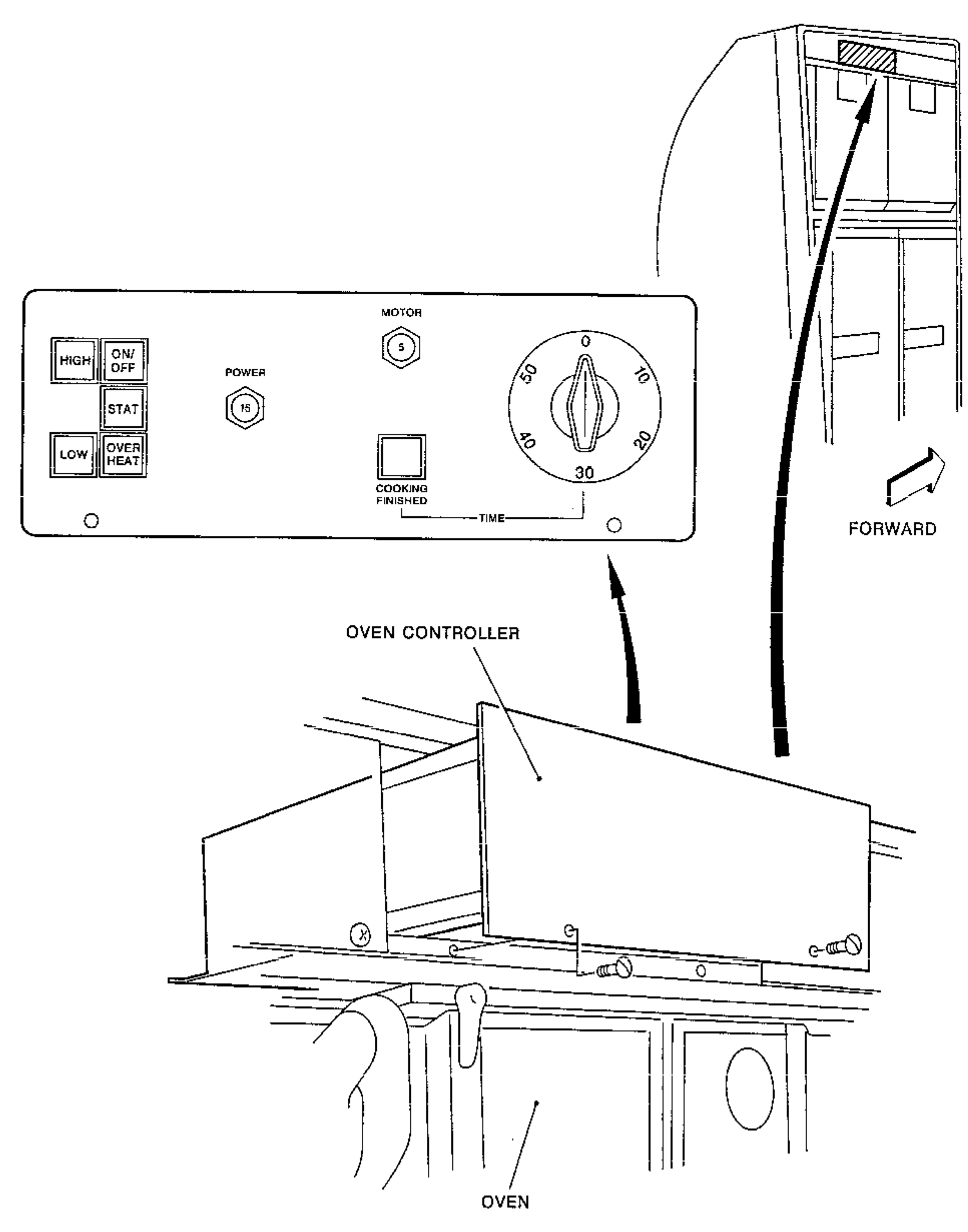
C. Remove

(1) Remove the two screws securing the bottom edge of the top section shelf.

(2) Pull the controller forward to break the connections to the electrical plugs at the rear. Remove the controller.

D. Install

(1) Observe the electrical safety precautions.



PRINTED IN ENGLAND

CMB 25 31 12 4 AAM0 00

RB

No.1 Galley - Oven Controller - Installation
Figure 401

(2) Check that the electrical connectors are clean and undamaged.

(3) Position the oven controller in its housing and push it fully outboard so that the two electrical plugs at the back of the controller engage the associated electrical receptacle at the rear of the housing. Secure the controller with the two screws.

R

E. Conclusion

(1) Check that the POWER switch on each oven controller is set to "OFF", reset the circuit breaker H1895 on panel 21-215.

(2) Check the oven controller by carrying out an operational test on the galley electrical system (Ref. 25-31-00, Adjustment/Test).

R

NO.2 GALLEY - DESCRIPTION AND OPERATION

1. General (Ref. Fig. 001)

RB No.2 Galley is located aft of the forward service door on the right hand side of the aircraft and has working faces on the forward and aisle sides.

RB The lower part of the galley, on the aisle face, accommodates either two full carts or four half carts behind a removable tri-fold door. On the forward face is a cupboard for a waste container with a waste flap above and a pull-up table with attachment underneath to stow the tri-fold door.

RB In the upper part of the galley on the aisle face is a warming cupboard and two mealtray containers with a downlight above. On the forward face are two beverage makers and an electrical panel. At worktop level on the forward face there is a worktop light and a sink with a water faucet above.

RB The pull up table is retained by a turncatch and the cupboard door has two integral catches. The mealtray containers each have a pushcatch and a mid latch for retention and each cart compartment has two turncatches. Mid latches are fitted for retaining the half carts at the inner position when used.

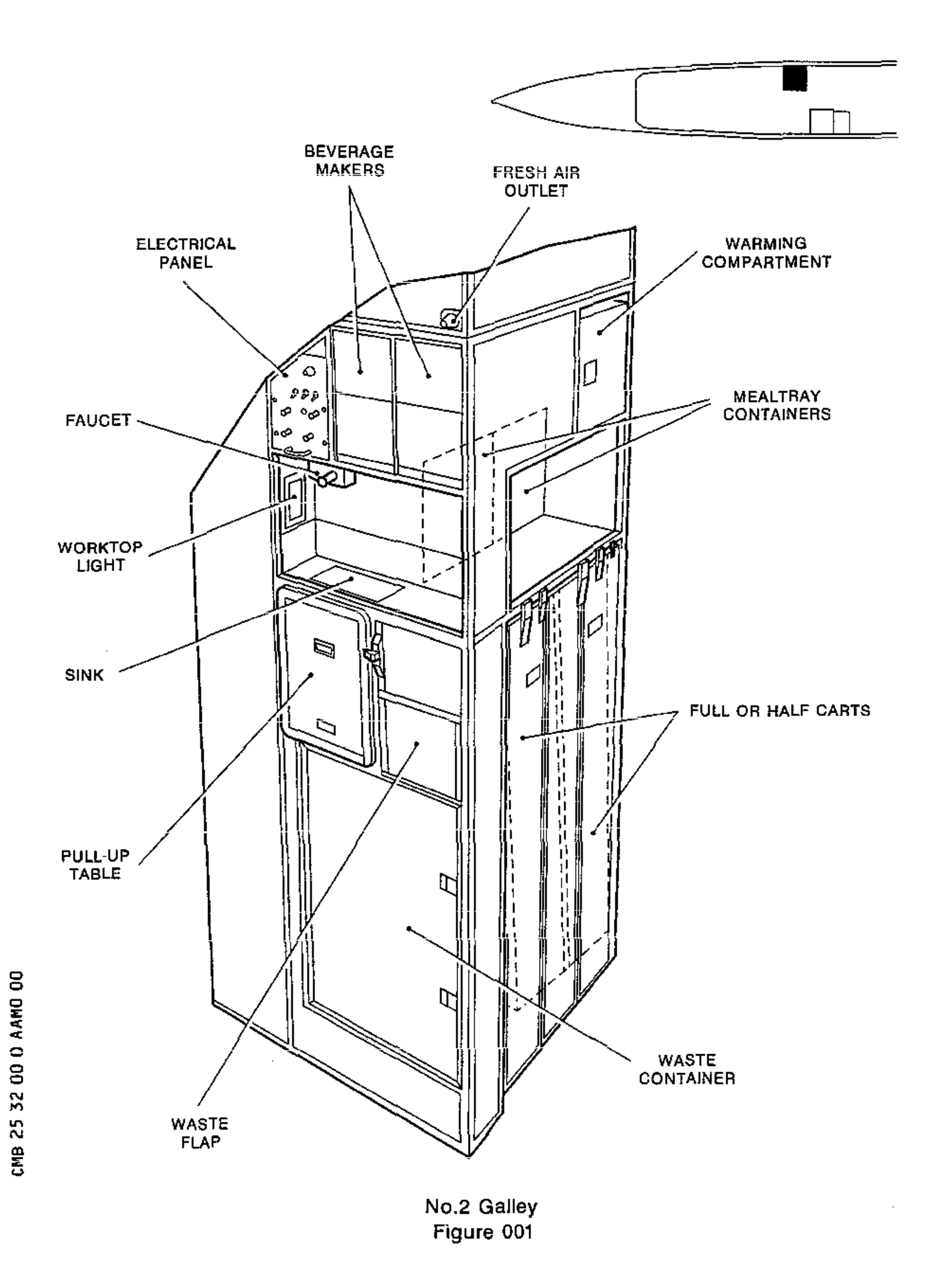
2. Construction (Ref. Fig. 001)

RB The structure of the galley is formed of a number of non-metallic honeycomb sandwich panels bonded with aluminium extruded sections or bonded joints to form a rigid unit. Four floor attachment points and two top attachment points are provided.

RB 3. Electrics

The electrical power supply is taken from No.3 main 200/115 AC busbar, through circuit breaker H1894 on panel 21-216.

RB The electrics control panel forms the front of a module which can easily be removed for checking and maintenance. Electrical supplies from the aircraft enter at the top of the galley. Within the galley they run to the control module, the worktop light, the downlight, the warming compartment and the two beverage makers.



No.2 Galley
Figure 001

PRINTED IN ENGLAND

RB

RB 4. Water/Waste

RB The water supply enters at worktop level and runs via a shut off valve to a tee junction. From this, pipes are run to the faucet and a second tee junction which has pipes running to the two beverage maker rails. The drain pipes from the beverage maker rails run into the muffler and this is connected to the galley drain pipe. The sink drain runs to a drain strainer and then the aircraft drain connection at floor level.

RB 5. Operation

A. Controls and Indicators (Ref. Fig. 002)

RB The controls, indicators and circuit breakers for the galley are located at the top LH forward face, and the electrical services panel on the flight deck.

RB Controls on the panel are as follows:

RB Downlight Dimming Control - Rotary Switch

RB Downlight - ON switch

RB Worktop light - Three position switch

RB BRIGHT - OFF - DIM

RB Warming Compartment - ON Switch

RB Indicators

RB Warming Compartment - ON Light

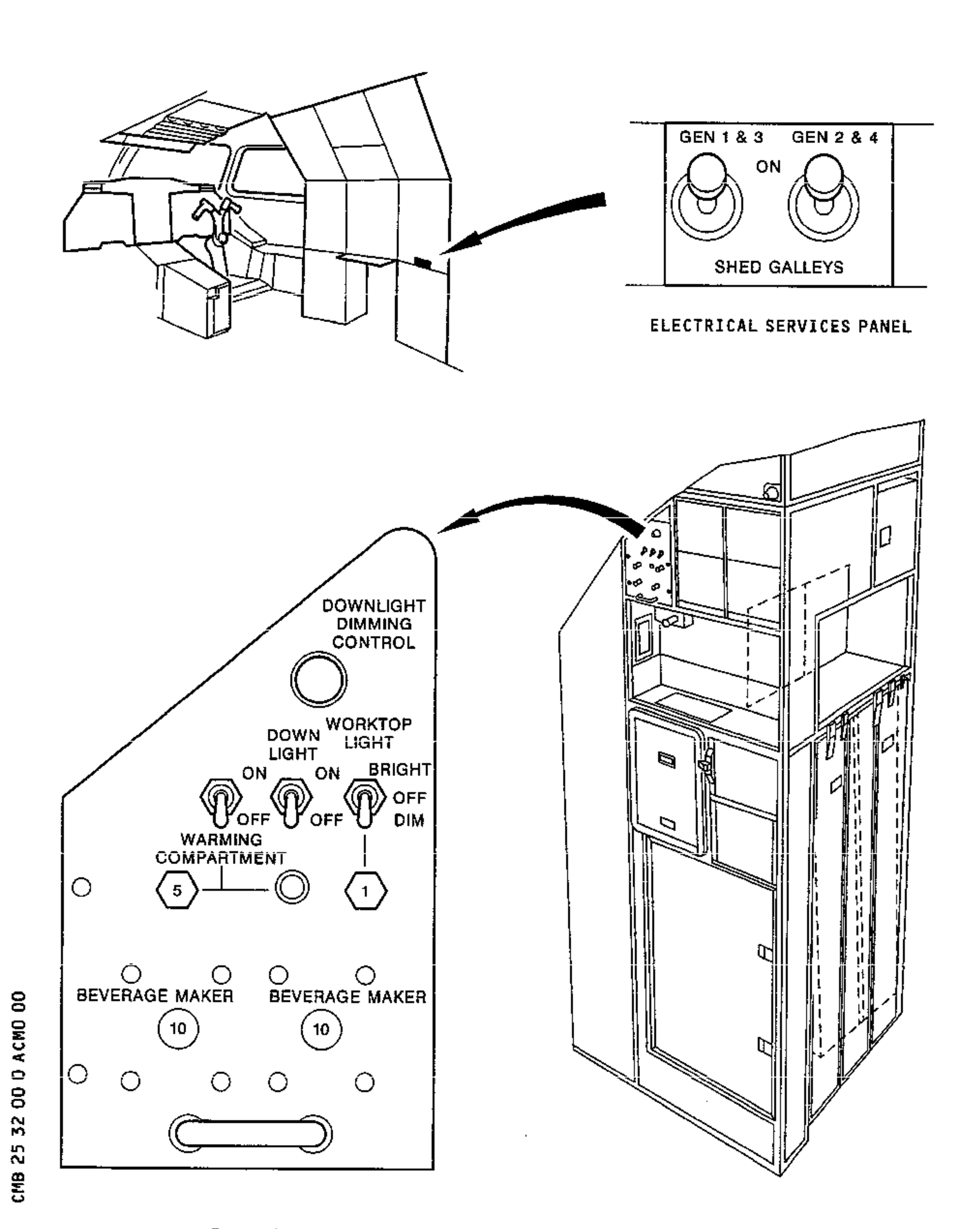
RB CB's for:

RB Warming Compartment

RB Worktop light

RB Beverage Maker.

RB Controls in the flight compartment are:
On circuit breaker panel 21-216, No.3 MAIN AC BUS GALLEY SUP. circuit breaker.
On the electrical services panel at the 3CM station SHED GALLEYS switches GEN 1 & 3 and GEN 2 & 4.



PRINTED IN ENGLAND

RB

Control Panel No 2 Galley, Galley-controls and Indicators
Figure 002

RB B. Functional Description

RB Electrical power for the galley is taken from No.3 main
RB busbar via a circuit breaker and contactor. The supply
RB is connected to a terminal block in the aircraft sidewall.

RB Provision is made for shedding the galley load from the
RB aircraft electrical distribution system by setting the
RB GEN 1 & 3 switch to SHED GALLEYS to automatically cut the
RB galley load from the supplying generator, (Ref. 25-30-00).

NO.2 GALLEY - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

No.2 galley is immediately aft of the right-hand forward service door. The galley must be partially dismantled for removal from, or installation in, the aircraft.

2. No.2 Galley (Ref. Fig. 401)

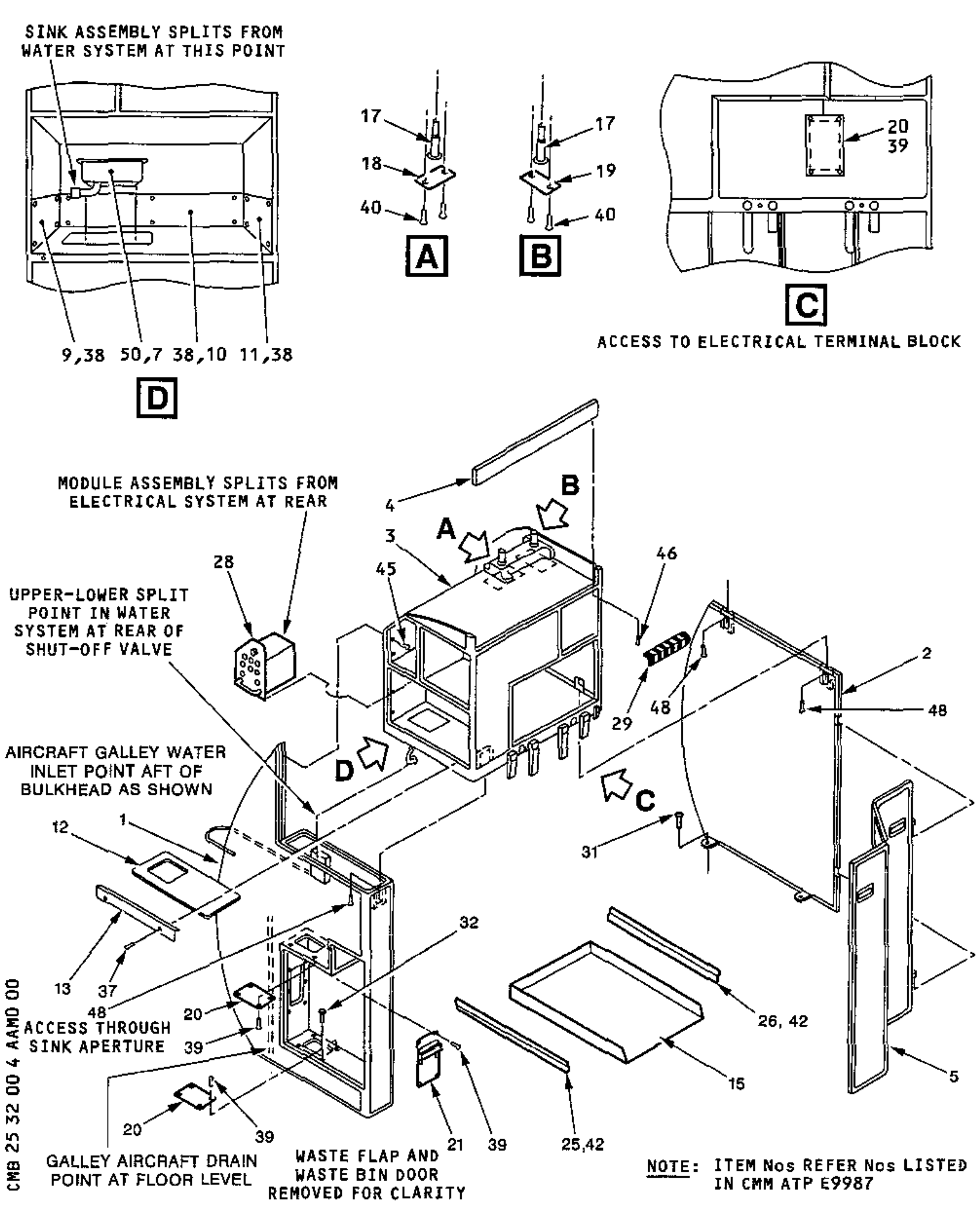
A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clip	-
Sealant PR1422BT (Ref. 20-30-00, No.366)	-
General purpose cleaning solvent BACM302 (Ref. 20-30-00, No.473)	-
Hose for drain mast	-
Hose for draining pipe line	-
Spillage containers	-
Tape, Self-adhesive waterproof 3 in (76mm) wide	-

B. Prepare

(1) Check that the light and warming compartment switches are off, and the beverage maker CBs are pulled on the electrical control panel.

(2) Electrically isolate the galley by tripping No.3 MAIN AC BUS GALLEY SUP circuit breaker H1894 on panel 21-216 in the flight compartment and fit a safety clip.



No.2 Galley - Installation
Figure 401

C. Remove

(1) Release the quick release fasteners and remove the meal tray containers and meal/beverage trolleys.

(2) Remove the waste bin from below the sink unit.

(3) Remove the four screws securing the rectangular access panel at the outboard side of the meal tray container compartment. Remove the panel and disconnect the four galley cables from the terminal block at the aircraft interface. Replace the panel.

(4) Open the small square cover above the adjacent toilet door and turn off the galley water supply.

(5) In the landing gear bay, operate the lever to remove the cap from the line drain outlet connector.

(6) Couple the drain hoses to the line drain outlet connection and to the forward drain mast. Lead them to suitable spillage containers.

(7) Open the beverage maker and galley main taps into the sink to drain the beverage makers and the galley system.

(8) Open the cover on the stub bulkhead beside the forward service door and turn the line drain valve to the drain position, arrows on the valve knob to point up and down in line with the pipe.

(9) When draining is complete, disconnect the galley water supply union on the outboard side of the valve.

(10) Remove the beverage makers by sliding them forward on their rails.

(11) Remove the access panel in the lower aft corner of the waste bin stowage assembly. Remove the hose clip and disconnect the waste drain pipe from the galley overboard drain. Place a blank cover over the overboard drain.

(12) Open the hinged access panel in the aft side of the waste bin stowage below the worktop, remove the hose clip and disconnect the waste drain pipe from the sink drain.

(13) Release and remove the warming compartment grill.

(14) Remove five countersunk screws and remove the pelmet assembly.

(15) Remove the four bolts and washers attaching the two spigot pin clamp plates in the top of the galley and withdraw the spigot pins.

(16) Remove two countersunk head screws and remove worktop front capping strip. Remove worktop plate.

(17) Disconnect water drain system from sink connection and the water inlet at the rear of shut-off valve.

(18) Remove four countersunk head screws and remove sink assembly.

(19) Lift off and remove the tri-fold door.

(20) Remove six pan head screws and remove the rear floor pan trapping strip. Remove seven pan head screws and remove the forward trapping strip. Remove the trolley floor pan.

(21) Remove the four bolts and the five screws attaching the upper structure to the forward and aft lower structures. Remove the upper structure complete.

(22) Remove the aft lower structure by removing the two screws at floor level.

(23) Remove four screws and the cover plate to gain access to the bolts securing the fwd lower structure to the cabin floor. Remove these bolts and remove the fwd lower structure.

(24) Remove the old sealant from the floor tray, and clean the floor of the aircraft using a general purpose cleaning solvent.

D. Install

(1) Comply with the electrical safety precautions.

(2) Position the forward lower structure (which accommodates the waste bin and the sink unit) to align with the fwd holes in the aircraft floor. Seal the mating edge between the unit and the floor with the approved sealant. Remove the screws securing the lower cover, fit and tighten the two bolts to secure the structure to the aircraft floor.

(3) Position the aft structure mounting lugs over the two rear holes in the aircraft floor. Seal the mating edges with sealant, position the two bolts and tighten.

(4) Place the trolley floor pan in position, secure with the trapping strips forward and aft, seal around the pan and strips with sealant.

(5) Position the upper structure on the front assembly and the rear bulkhead, align the attaching bolts and screws and tighten.

(6) Insert the two spigot pins through the housings in the top of the galley unit into the fitting on the aircraft structure, and lock with the clamp plates using the four hexagon head bolts and washers.

(7) Remove the four screws securing the rectangular access panel at the rear of the meal tray container compartment, remove the panel and connect the four galley cables to the terminal block at the aircraft interface. Replace the panel.

(8) Fit the warming compartment grill.

(9) Fit the sink assembly, fit the attaching screws and tighten.

(10) Connect the sink drain hose and the drain line connection at the aircraft floor.

(11) Fit the worktop over the sink assembly and secure the trapping strip with two screws. Seal around the worktop and top of the sink unit.

(12) Connect the galley water feed at the rear of the shut off valve.

(13) Install the tri-fold door.

(14) Replace all panels removed to facilitate access to mounting bolts and screws, and those removed for access to the water feed and drain systems.

(15) Replace the waste bin below the sink unit.

E. Conclusion

(1) Check that all galley switches are off.

(2) Open the square cover above the adjacent toilet door and turn on the galley water supply.

(3) Replace the beverage makers.

(4) Carry out the checks given in 25-32-00 Adjustment/Test.

(5) Replace the meal tray containers and the beverage/meal tray trolleys. Secure with the quick release latches.

(6) Remove the drain hoses from the drain mast and line drain outlet connector and replace the cap on the outlet connector.

(7) Remove the spillage containers.

R

NO.2 GALLEY - ADJUSTMENT/TEST

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

1. General

The tests detailed below are to enable the galley potable water system, water waste system, and the Beverage Maker water system to be proved. It also checks the galley and Beverage Maker electrical system. Controls and indicators which are used during the tests are on the Galley electrical control panel and on the Beverage Maker in the potable water system, waste water system (Ref. 38-00-00, Description and Operation) and in the flight compartment.

2. Potable Water and Water Waste Systems Test (Ref. Fig. 501)

A. Prepare to test

(1) Ensure that the water system has been serviced in accordance with 38-11-00, Servicing.

(2) Make available ground power as detailed in 24-41-00.

(3) Ensure circuit breaker H1894 on panel 21-216 is set on the flight deck.

(4) Check that the Beverage Makers are full by confirmation that the low water indicator light is extinguished. Check light is serviceable by pressing lamp test switch.

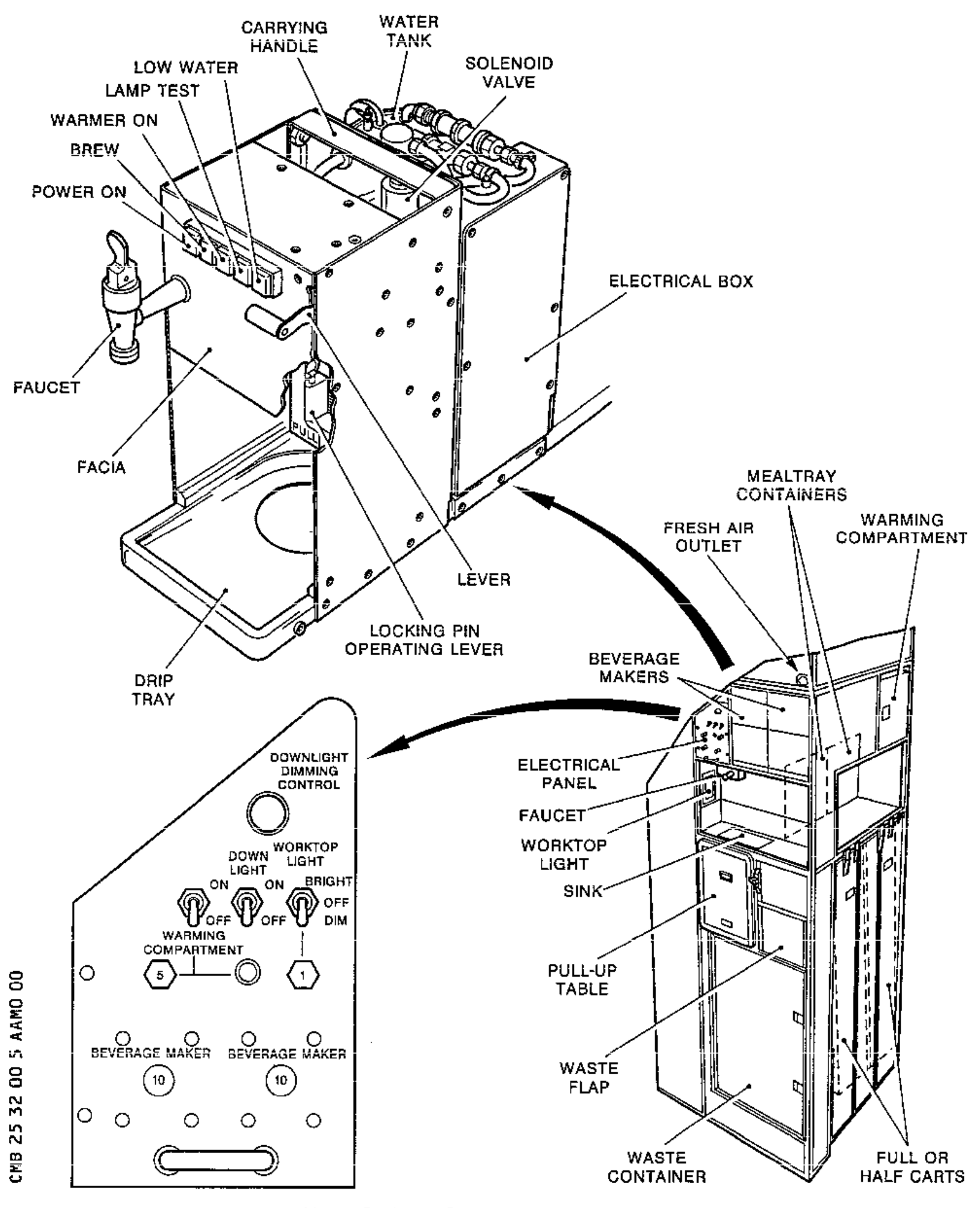
B. Test

(1) Check Beverage Maker and Sink faucet connections for leaks and rectify as necessary.

(2) With sink plug closed, open the faucets in turn checking that the water flows when the faucet is opened and ceases to flow when the faucet handle is released. Ensure that each handle returns to the closed position.

(3) Operate the drain plug valve lever and check that the sink drains completely via the forward drain mast to atmosphere.

(4) Check that there are no leaks between the sink and the drain mast.



PRINTED IN ENGLAND

RB

No 2 Galley - Controls And Indicators
Figure 501

RB 3. Operational Test, Galley Electrical System (Ref. Fig. 501)

A. Prepare to Test

(1) Make available electrical ground power as detailed in 24-41-00.

(2) At the electrical control panel on the galley, check that the circuit breaker buttons indicate that the breakers are tripped, and check that the WARMING COMPARTMENT, DOWNLIGHT AND WORKTOP LIGHT power switches are in the "OFF" position. Also check the POWER ON light switch is OFF on the Beverage Maker.

(3) Set No.3 MAIN AC BUS GALLEY SUP circuit breaker H1894 on panel 21-216 in the flight compartment.

B. Test

(1) Beverage Maker

(a) Ensure water supply is available to the Beverage Maker (Galley tap open).

(b) Ensure an empty serving container is fitted correctly.

(c) Lower lever to "STOP" position.

(d) Close the 10 A circuit breaker on the galley control panel for the unit to be tested.

(e) Depress POWER ON light switch to "ON" position.

(f) POWER ON light illuminates.

(g) Depress LAMP TEST light switch. All lights should illuminate.

(h) Check the unit is full of water by observing the LOW WATER light, when the LAMP TEST light switch is depressed. On release the light should extinguish indicating sufficient water in the unit.

(i) Depress WARMER ON light switch to "ON". Switch illuminates.

(j) Depress BREW light switch.

(k) BREW lamp illuminates and hot water is forced through brew head and into container below when water is at correct temperature.

(l) On completion of brew, BREW lamp extinguishes. Raise lever to remove server.

(m) Depress POWER ON light switch to "OFF" and isolate circuit breaker.

(n) Repeat complete operations (a) to (m) for second Beverage Maker.

(2) Warming Compartment

(a) Close 5 A circuit breaker on the control panel.

(b) Set warming compartment control switch to "ON" position, lamp illuminates.

(c) Ensure compartment heats up, all elements operating.

(d) Ensure thermostat cycles correctly.

(e) Trip control switch to "OFF" position and isolate circuit breaker.

(3) Worktop Light

(a) Close 1 A circuit breaker.

(b) Set control switch to "BRIGHT" position.

(c) Lamp should illuminate fully.

(d) Set control switch to "DIM" position.

(e) Lamp illuminates partially.

(f) Set control switch to "OFF" position. Open 1 A circuit breaker.

(4) Downlight

(a) Set control switch to "ON" position.

(b) Check response of light illumination in accordance with setting of dimming control switch.

RB (c) Set control switch to "OFF" position.

RB C. Conclusion

RB (1) If no longer required, disconnect ground power as detailed in 24-41-00.

No.3 GALLEY - DESCRIPTION AND OPERATION

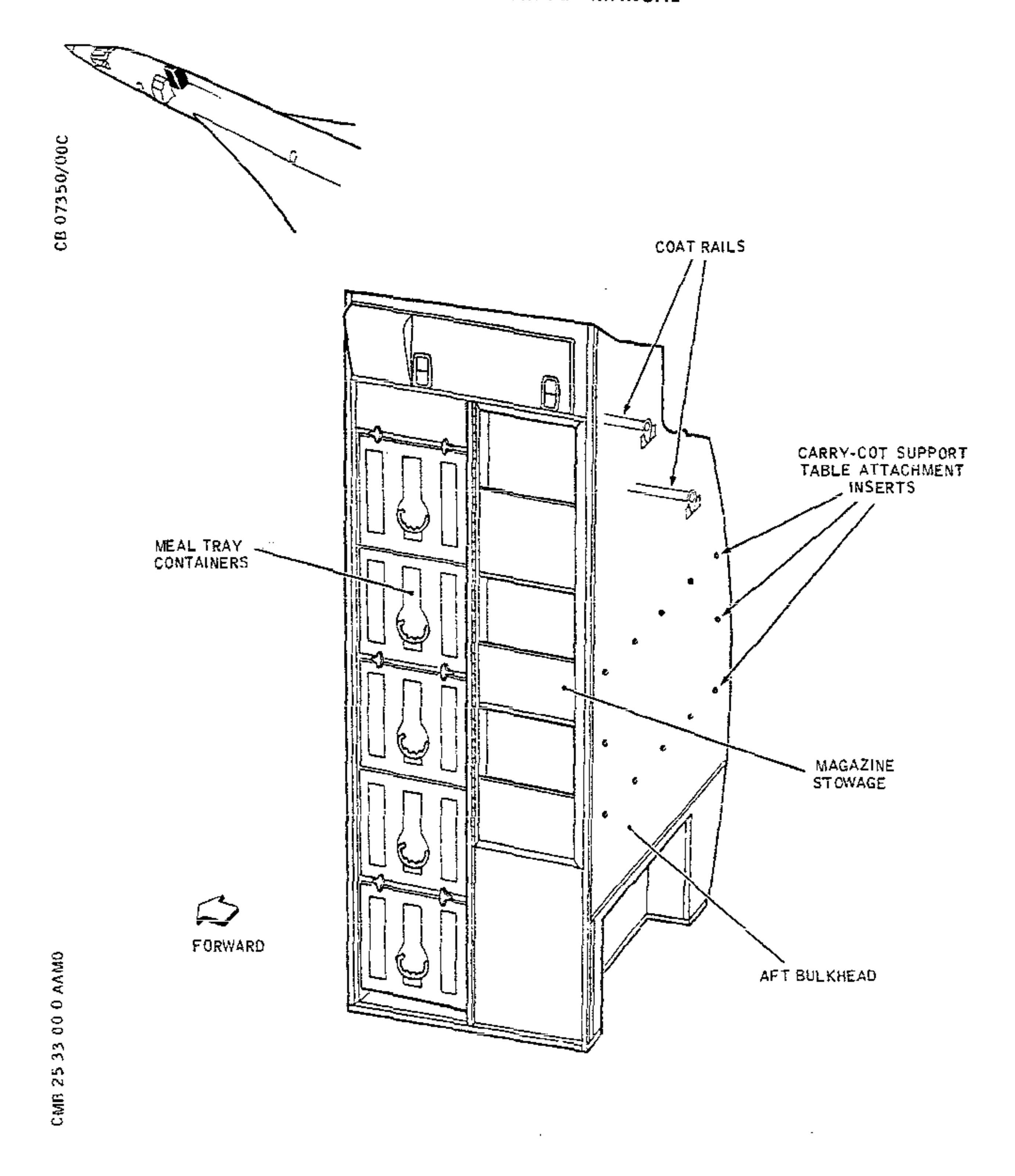
1. General (Ref. Fig. 001)

   Galley No.3 is located immediately aft of No.1 toilet at the forward right-hand side of the cabin.

   The shell of the galley comprises a meal tray container assembly and aft bulkhead, a top unit assembly and a base panel assembly. It houses five meal tray containers, coat racks, magazine stowage and a drawer, and has general stowage in the top unit. Threaded inserts are located on the rear face of the aft bulkhead to take a carry-cot support table.

2. Construction (Ref. Fig. 001)

   The meal tray container assembly, aft bulkhead, top unit and base panel assembly are attached to each other by screws and bolts. The complete shell is secured to the outer and inner seat rails by seat rail fittings attached to the base panel assembly. The meal tray containers and drawer are held in position by quick-release latches.



No.3 Galley
Figure 001

No. 3 GALLEY - REMOVAL/INSTALLATION

WARNING: OBSERVE THE SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

   No. 3 galley is located on the right-hand, forward of the forward passenger compartment. The galley must be partially dismantled for removal from, or installation in, the aircraft.

2. No. 3 Galley (Ref. Fig. 401)

   A. Equipment and Materials

DESCRIPTION	PART NO.
Sealant PR 1422 BT (Ref. 20-30-00, No.357)	-
Adhesive (Ref. 20-30-00, No.313)	CAF 4
R General purpose cleaning solvent (Ref.20-30-00, No. 473)	BAC M302
Circuit breaker safety clips	-

   B. Prepare

      (1) Remove curtain at aft end of galleys 3 and 4.

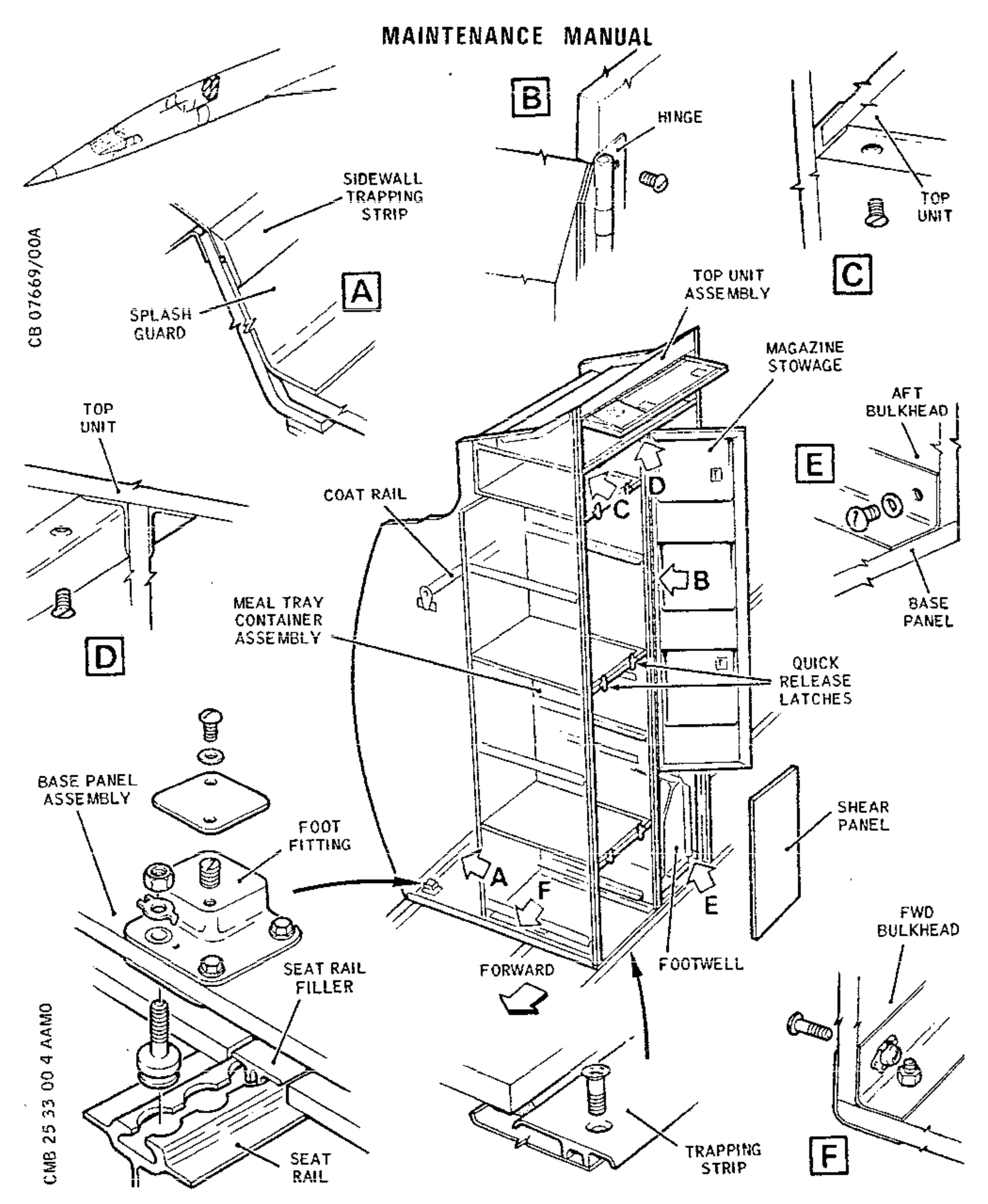
      (2) Remove the curtain lintel which includes the exit
R direction sign between galleys 3 and 4 (Ref. 33-51-00,
R Removal/Installation).

      (3) Release the quick release latches and remove the five meal tray containers.

   C. Remove

      (1) Remove the gangway trapping strip from the aircraft floor.

      (2) Lift the lip of the sidewall rubber trapping strip and tuck down behind the splash guard. Release the splash guard from the fore and aft bulkheads.



No. 3 Galley - Installation
Figure 401

R (3) Unscrew the pan head bolts from the magazine stowage hinge and remove the magazine stowage.

(4) Remove the upper inboard and lower outboard coat rail tubes from their brackets.

(5) Remove the bolts and screws securing the top unit assembly to the fore and aft bulkheads and remove the top unit.

R (6) Unscrew the pan head screws and washers and remove the shear panel.

(7) Remove the pan head screws securing the aft bulkhead and foot well to the base assembly. Remove the bulkhead.

(8) Unlock the foot fittings on the base assembly and remove the base assembly from the rails.

(9) Remove the seat rail fillers from the inboard and outboard seat rails.

(10) Remove the bolts and separate the base panel assembly from the meal tray container assembly.

R (11) If damaged, remove the seals from the floor of the aircraft and clean the area using general purpose cleaning solvent.

D. Install

(1) Inspect the seals, if new seals are required bond them to the aircraft floor with adhesive.

(2) Attach the base panel assembly to the meal tray container assembly using pan head and mushroom headed bolts and plain washers.

(3) Position and fit the base assembly to the seat rails and lock the foot fittings to the rails.

(4) Attach the aft bulkhead and footwell to the base
R assembly using pan head screws and spring washers.

(5) Attach the shear panel to the aft bulkhead, base
R assembly and meal tray container assembly using pan head screws and spring washers.

(6) Secure the top unit assembly to the fore and aft
R bulkheads using countersunk head screws and pan head

R bolts with spring washers.

(7) Fit the lower outboard and upper inboard coat rail tubes in their brackets.

(8) Secure the magazine stowage to the meal tray container
R assembly by its hinges using pan head bolts.

(9) Fit the seat rail fillers into the inboard and outboard seat rails under the aft bulkhead, and seal with sealant.

(10) Bond the splash guard to the fore and aft bulkhead and lift the lip of the sidewall trapping strip over the edge of the splash guard.

(11) Fit the gangway trapping strip and angle and seal the angle to the base.

(12) Seal all the base edges with sealant.

E. Conclusion

(1) Install the curtain lintel incorporating exit
R direction sign between galleys 3 and 4 (Ref. 33-51-00,
R Removal/Installation).

(2) Install the curtain at the aft end of galleys 3 and 4.

(3) Replace the five meal tray containers and secure with the quick release latches.

R

No.4 GALLEY - DESCRIPTION AND OPERATION

1. General (Ref. Fig. 001)

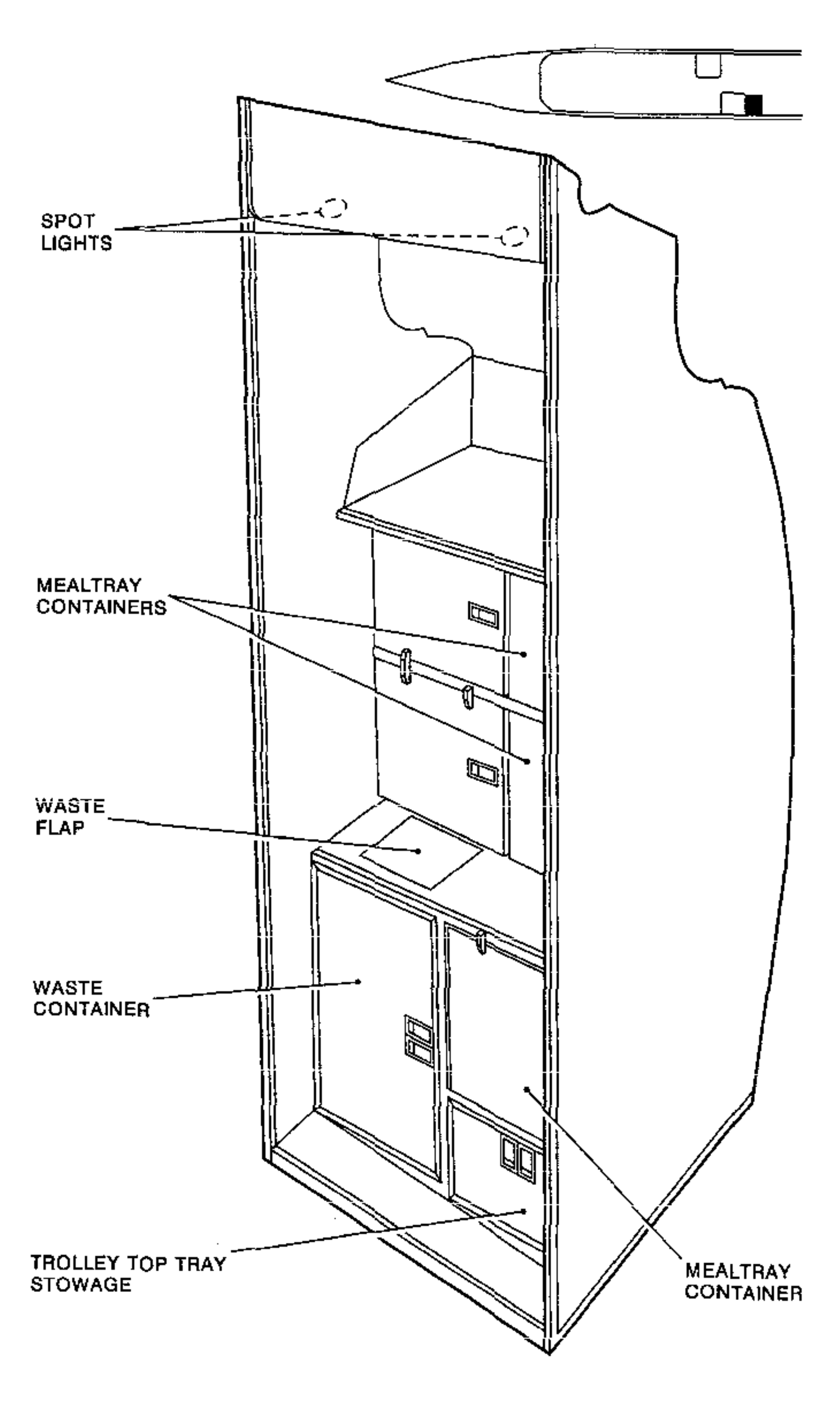
RB No.4 Galley is located aft of the cabin services unit (CSU) on the left hand side of the forward cabin and faces the aisle. The galley accommodates five mealtray containers, a cupboard for a waste container with a waste flap above and a cupboard containing a trolley top tray. The mealtray containers are each retained by two turncatches and the cupboard doors each have two integral catches. It is equipped with two spotlights over the worktop.

RB 2. Construction

RB The structure of the galley is formed of a number of non-metallic honeycomb sandwich panels bonded with aluminium extruded sections or bonded joints to form a rigid unit. Four floor attachment points are provided.

RB 3. Electrical Power Supply

RB Electrical supplies from the aircraft enter via the CSU at the forward face of the galley and run to the controls for the two spotlights (Ref. 33-23-00).



PRINTED IN ENGLAND

CMB 25 34 00 0 AAM0 00

RB

No.4 Galley
Figure 001

NO.4 GALLEY - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

No.4 galley is located aft of the cabin services unit (CSU) on the left hand side and faces the aisle.

2. No.4 Galley (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Sealant PR1422BT (Ref. 20-30-00, No.357)	-
General purpose cleaning solvent BAC M302 (Ref. 20-30-00, No.473)	-
Adhesive (Ref. 20-30-00, No.313)	CAF 4

B. Prepare

(1) Trip circuit breaker L232 on panel 14-215, (Map Ref. C11) FLT DECK ROOF LTS SUP, and fit safety clip.

C. Remove

(1) Remove six csk. hd. screws and remove pelmet assembly.

(2) Remove galley lighting electrical connector located on adjoining CSU.

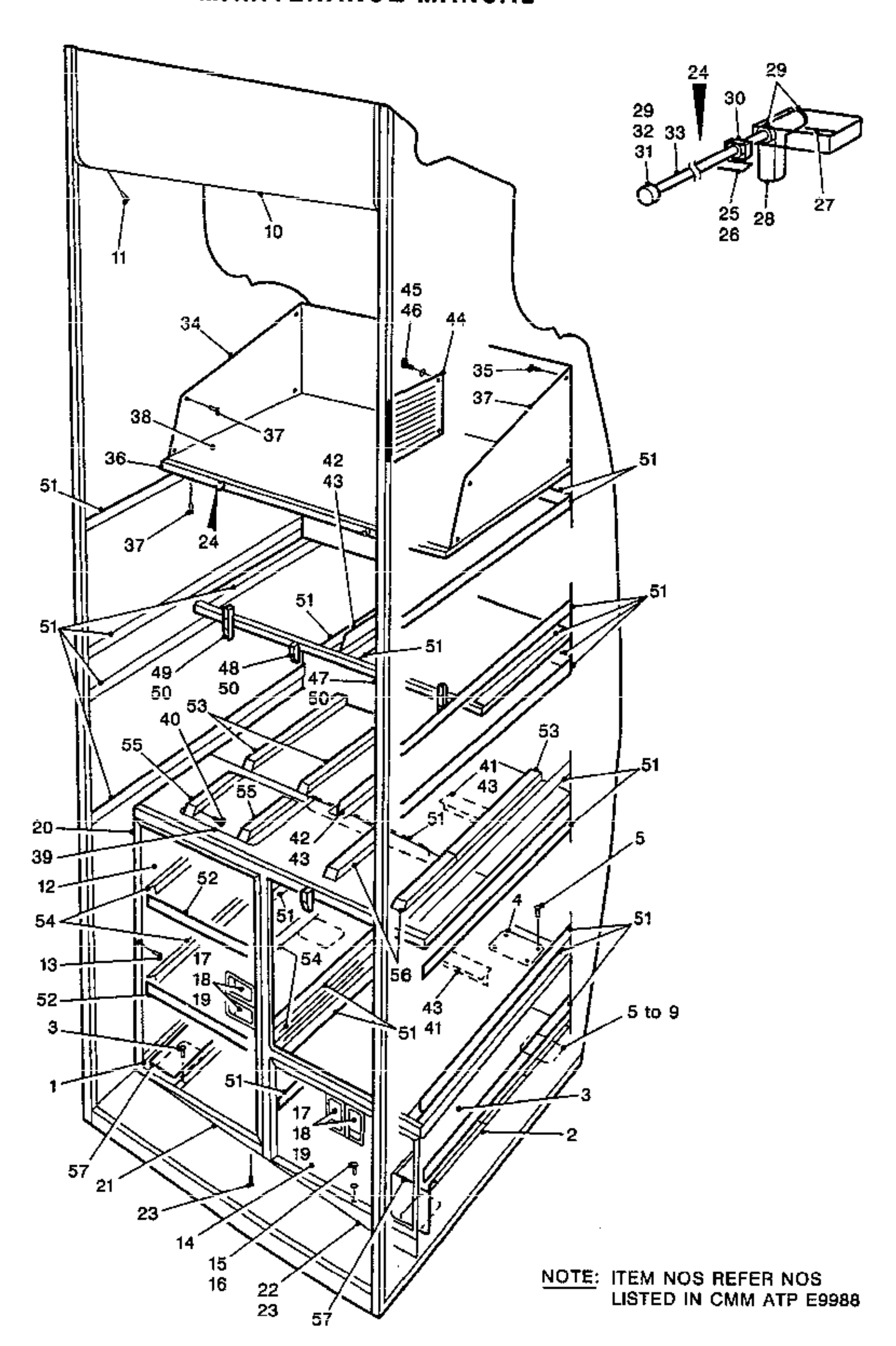
(3) Remove waste bin, mealtray containers and trolley top tray.

(4) Remove csk. hd. screws attaching the runners to the galley and remove the runners.

(5) In four positions remove two csk. hd. screws and remove cover plate.

(6) In four positions remove bolt assembly attaching galley to aircraft floor track fitting.

(7) Galley can be removed.



No. 4 Galley - Installation
Figure 401

CMB 25 34 00 4 AAM0 00

D. Install

(1) With runners and cover plates removed, position the galley structure over the four aircraft floor track fittings.

(2) Insert attaching bolt and washer at each position and tighten.

(3) In four positions replace the cover plate using the two csk. hd. screws.

(4) Replace the two runners using the csk. hd. screws.

(5) Replace the waste bin, mealtray containers and trolley top tray.

(6) Reconnect the lighting electrical connector.

(7) Replace the pelmet assembly, using six csk. hd. screws.

E. Conclusion

(1) Test the galley lighting in accordance with Adjustment/Test.

NO.4 GALLEY - ADJUSTMENT/TEST

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

1. General

The operational test detailed below is to enable the galley electrical system to be proved. Controls used during the tests are on the galley or on a circuit breaker panel in the flight compartment.

2. Operational Test - Galley Electrical System

A. Prepare to Test

(1) Ensure that suitable POWER ON placards are prominently displayed on the aircraft.

(2) Make available electrical ground power as detailed in 24-41-00.

B. Test

(1) Ensure that the FLT DECK ROOF LTS SUP circuit breaker L232 on panel 14-215, map ref. C11, is set.

RB (2) Set Downlight control switch to 'ON'.

RB (3) Spotlights will illuminate to the degree dependent on
RB the position of the Dim Control switch. Check the
RB operation of the switch by rotation and observing the
RB intensity of the spotlights.

RB (4) Set Downlight control switch to 'OFF' and check
RB spotlights extinguish.

C. Conclusion

(1) Disconnect electrical ground power as detailed in 24-41-00.

(2) Remove the POWER ON warning placards.

No.5 GALLEY - DESCRIPTION AND OPERATION

1. General (Ref. Fig. 001)

No.5 galley comprises a forward bulkhead, meal tray container assembly, base panel, splashback, support panel and a top stowage compartment made up of a back panel, shelf, door and lintel assembly. The galley houses five meal tray containers, a hinged worktop and a removable coat rail. A fluorescent light is fitted on the lintel, and a trolley restraint strap is stowed on the forward bulkhead. The galley is located on the
R left-hand side at the rear of the aft passenger cabin. Certain
R emergency equipment is located on this galley (Ref.25-60-00).

2. Construction (Ref. Fig. 001)

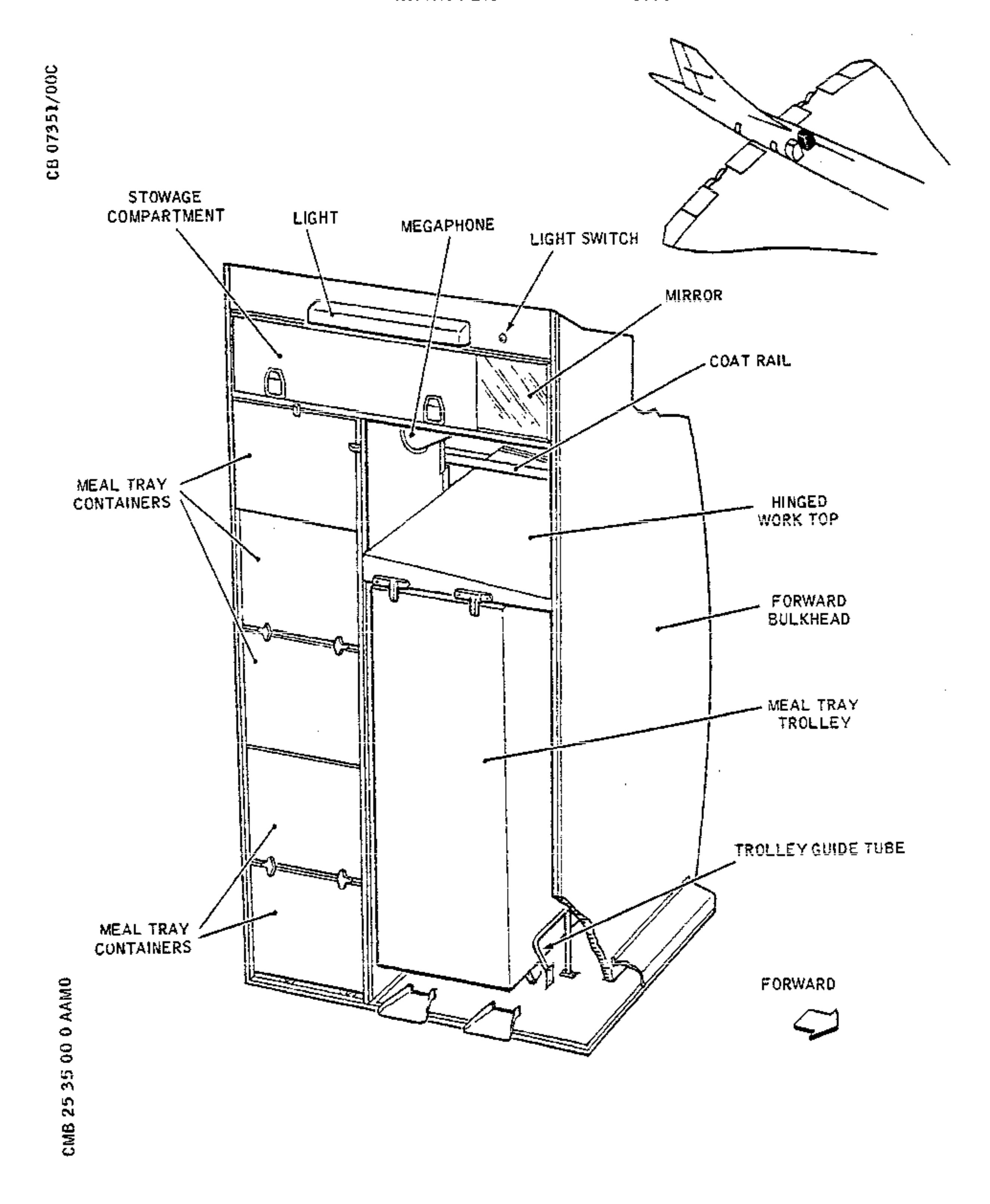
The forward bulkhead, meal tray container assembly, base panel, splashback, support panel and top stowage compartment assembly are attached to each other by bolts and screws. The assembled galley unit is secured to the inner and outer seat rails by foot fittings attached to the assembly base. The worktop is hinged to the meal tray container assembly on one side and held in the horizontal position by latches which engage latch plates on the forward bulkhead. The meal tray containers are held in position by quick-release latches. When not in use, the coat rail is stowed in clips attached to the aft face of the forward bulkhead.

3. Electrical Power Supply

The electrical power supply for the fluorescent light is taken from a socket in the left-hand aft stowage compartment, supplied from busbar 28X 200/115V.AC through circuit breaker L232, map ref C11, on panel 14-215.

Printed in England

CB 07351/00C



CMB 25 35 00 0 AAM0

R

No. 5 Galley
Figure 001

NO.5 GALLEY - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

No.5 galley is at the rear of the aft passenger cabin on the left-hand side. The galley must be partially dismantled for removal from, or installation in, the aircraft.

2. No.5 Galley (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Sealant PR1422BT (Ref.20-30-00 No.366)	
Adhesive CAF4 (Ref. 30-00-00 No.313)	-
General purpose cleaning solvent BAC M302 (Ref.20-30-00 No.473)	-
Circuit breaker safety clips	-

B. Prepare.

(1) Electrically isolate the galley lighting by tripping FLT DECK ROOF LTS SUP. circuit breaker L232 map ref. C11 on panel 14-215 in the flight compartment, and fit a safety clip.

(2) Disconnect the galley electric light plug located high in the adjacent amenity stowage.

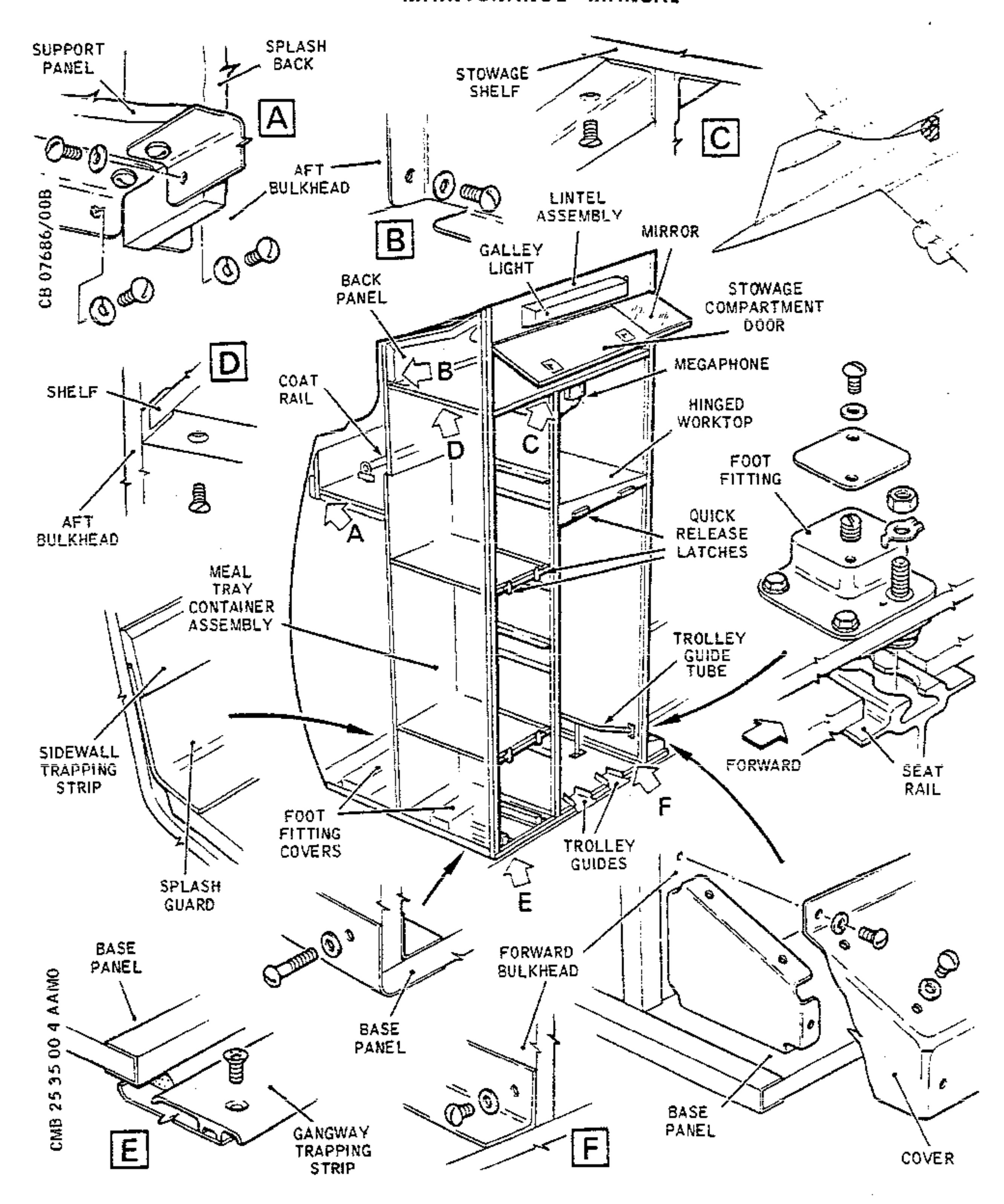
(3) Remove the curtain and curtain lintel complete at the forward end of galleys No.5 and 6.

(4) Release the quick release latches and remove the five meal tray containers and the meal tray trolley.

(5) Remove the coat rail if fitted, and place in stowage clips on the forward bulkhead.

R (6) Remove the emergency equipment, consisting of a
R megaphone, a radio beacon, and a supplementary
R emergency pack.

C. Remove.



No.5 Galley - Installation
Figure 401

R

(1) Remove the screws attaching the trolley guides to the base panel and remove the guides.

(2) Remove the screws and washers securing the trolley guide tube assembly to the base panel and the forward bulkhead. Remove the guide tube.

(3) Remove the gangway trapping strip from the aircraft floor (Ref.Detail E).

(4) Lift the lip of the sidewall trapping strip and tuck down behind the splash guard. Release the splash guard from the fore and aft bulkheads.

(5) Undo the screws in the hinge and remove the worktop.

(6) Undo the screws securing the support panel to the fore and aft bulkheads and splash back. Remove the support panel (Ref.Detail A).

(7) Undo the screws securing the splash back to the fore and aft bulkheads and remove the splash back. (Ref. Detail A).

(8) Remove the top stowage compartment door.

(9) Remove the screws attaching the lintel assembly to the fore and aft bulkheads, and remove lintel assembly.

(10) Remove the screws attaching the stowage compartment back panel to the fore and aft bulkheads and shelf. Remove the back panel. (Ref.Detail B).

(11) Remove the screws securing the stowage compartment shelf to the channels on the fore and aft bulkheads and to the meal tray container assembly. Slide out the shelf. (Ref.Details C & D).

(12) Undo the screws and remove the cover at the bottom face of the forward bulkhead to give access to the foot fittings.

(13) Remove the screws securing the forward bulkhead to the base panel assembly and remove the bulkhead. (Ref. Detail F).

(14) Unlock the foot fittings on the base assembly and remove the base panel and meal tray container assembly.

(15) Remove the bolts and separate the base panel assembly from the meal tray container assembly.

(16) If damaged, remove the seals from the floor of the aircraft and clean the area using general purpose cleaning solvent.

D. Install

(1) Inspect the seals; if new seals are required bond them to the aircraft floor with adhesive.

(2) Attach the base panel assembly to the meal tray container assembly using pan head and mushroom headed bolts and plain washers.

(3) Position and fit the base assembly to the seat rails and lock the foot fittings to the rails.

(4) Attach the forward bulkhead to the base panel assembly using pan head screws and spring washers. Seal the bulkhead to the galley abse. (Ref.Detail F).

(5) Fit the cover to the bottom forward face of the the forward bulkhead and secure with pan head screws and spring washers.

(6) Slide the stowage compartment shelf into the channels on the fore and aft bulkheads. Secure the shelf to the channels and meal tray container assembly using screws. (Ref. Details C & D).

(7) Attach the stowage compartment back panel to the fore and aft bulkheads and shelf using pan head screws and spring washers. (Ref.Detail B).

(8) Attach the lintel assembly to the fore and aft bulkheads using pan head screws and spring washers.

(9) Attach the top stowage compartment door using screws.

(10) Secure the splash back to the fore and aft bulkheads using pan head screws and spring washers (Ref.Detail A).

(11) Attach the support panel to the fore and aft bulk-heads and splash back using pan head screws and spring washers. (Ref.Detail A).

(12) Attach the worktop hinge to the meal tray container assembly with screws.

(13) Fit the gangway trapping strip and angle and seal the angle to the base. (Ref. Detail E).

(14) Slide the lip of the trolley guides under the trapping strip and secure them to the base panel with screws.

(15) Position the trolley guide tube assembly and secure it to the base panel and the forward bulkhead with pan head screws and spring washers.

(16) Bond the splash guard to the fore and aft bulkheads and lift the lip of the sidewall trapping strip over the edge of the splash guard.

(17) Seal all the base edges with sealant.

E. Conclusion

(1) Install the curtain lintel and curtain at the forward end of galleys No.5 and 6.

(2) Connect the galley electric light plug located high in the adjacent amenity stowage.

(3) Replace the five meal tray containers and meal tray trolley and secure with the quick release latches.

(4) Fit the coat rail in its brackets if required.

(5) Reset the circuit breaker previously tripped.

R (6) Fit the emergency equipment, consisting of a
R megaphone, a radio beacon and a Supplementary
R emergency pack.

NO.5 GALLEY - ADJUSTMENT/TEST

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

1. General

The operational test detailed below is to enable the galley electrical system to be proved. Controls used during the test are on the galley or on a circuit breaker panel in the flight compartment.

2. Operational Test - Galley Electrical System

A. Prepare to Test

(1) Ensure that suitable POWER ON placards are prominently displayed on the aircraft.

(2) Make available electrical ground power as detailed in 24-41-00.

B. Test.

(1) Ensure that the FLT DECK ROOF LTS SUP circuit
R breaker L232 on panel 14-215, map ref.C11, is set.

(2) Set the light switch on the galley lintel to "ON"
R and check that the galley fluorescent light is
R illuminated.

(3) Set the light switch on the galley lintel to "OFF" and check that the galley fluorescent light is extinguished.

C. Conclusion.

(1) Disconnect electrical ground power as detailed in 24-41-00.

(2) Remove the POWER ON warning placards.

No.6 GALLEY - DESCRIPTION AND OPERATION

1. General (Ref. Fig. 001)

No.6 galley comprises a forward bulkhead, meal tray container assembly, base panel, splashback, support panel and a top stowage compartment made up of a back panel, shelf, door and lintel assembly. The galley houses five meal tray containers a hinged worktop and a removable coat rail. A fluorescent light is fitted on the lintel, and a trolley restraint strap is stowed on the forward bulkhead. The galley is located on the right-hand side at the rear of the aft passenger cabin.

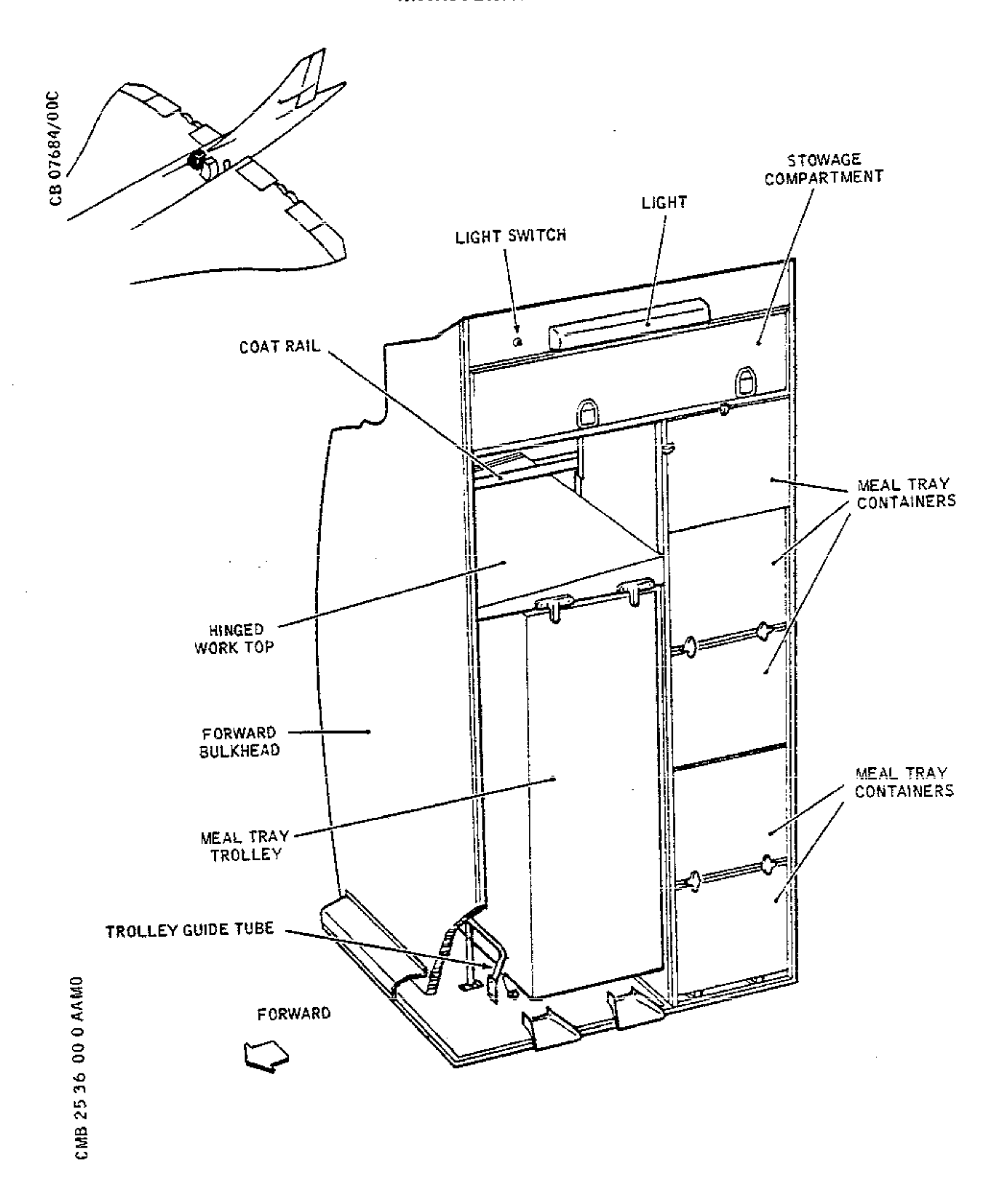
2. Construction (Ref. Fig. 001)

The forward bulkhead, meal tray container assembly, base panel, splashback, support panel and top stowage compartment assembly, are attached to each other by bolts and screws.

The assembled galley unit is secured to the inner and outer seat rails by foot fittings attached to the base assembly. The worktop is hinged to the meal tray container assembly on one side and held in the horizontal position by latches which engage latch plates on the forward bulkhead. The meal tray containers are held in position by quick release latches. When not in use, the coat rail is stowed in clips attached to the aft face of the forward bulkhead.

3. Electrical Power Supply

The electrical power supply for the fluorescent light is taken from a socket in the right-hand aft stowage compartment, supplied from busbar 28X, 200/115V.AC through circuit breaker L232, map ref C11, on panel 14-215.



No.6 Galley
Figure 001

R

NO.6 GALLEY - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

No.6 galley is at the rear of the aft passenger cabin on the right-hand side. The galley must be partially dismantled for removal from, or installation in, the aircraft.

2. No.6 Galley (Ref. Fig. 401)

A. Equipment and Materials.

DESCRIPTION	PART NO.
R Sealant PR1422 BT (Ref.20-20-00.No.366)	
R Adhesive CAF 4 (Ref.20-30-00.No.313)	-
General purpose cleaning solvent R BAC302 (Ref.20-30-00,No.473)	-
Circuit breaker safety clips	-

B. Prepare

(1) Electrically isolate the galley lighting by tripping FLT DECK ROOF LTS SUP circuit breaker L232, map ref. C11 on panel 14-215 in the flight compartment, and fit a safety clip.

(2) Disconnect the galley electric light plug located high in the adjacent amenity stowage.

(3) Remove the curtain and curtain lintel at the forward end of galleys No.5 and 6.

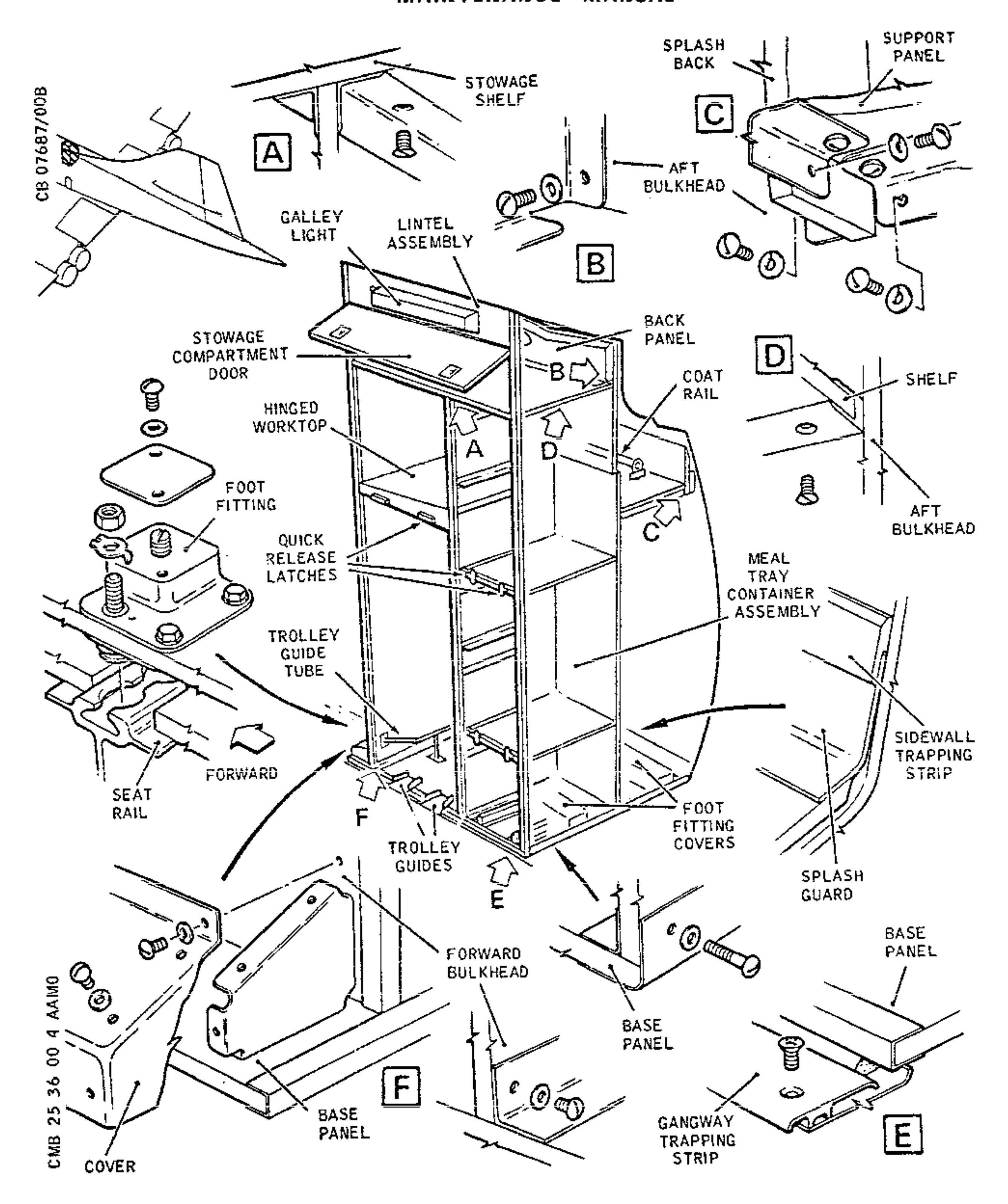
(4) Release the quick release latches and remove the five meal tray containers and the meal tray trolley.

(5) Remove the coat rail if fitted, and place in stowage clips on the forward bulkhead.

C. Remove.

(1) Remove the gangway trapping strip from the aircraft floor. (Ref.Detail E).

Printed in England



No.6 Galley - Installation
Figure 401

R

(2) Lift the lip of the sidewall trapping strip and tuck down behind the splash guard. Release the splash guard from the fore and aft bulkheads.

R (3) Remove the screws attaching the trolley guides to
R the base panel and remove the guide.

R (4) Remove the screws and washers securing the trolley
R guide tube assembly to the base panel and the
R forward bulkhead. Remove the guide tube.

R (5) Undo the screws in the hinge and remove the worktop.

R (6) Undo the screws securing the support panel to the
R fore and aft bulkheads and splash back. Remove the
R support panel. (Ref.Detail C).

R (7) Undo the screws securing the splash back to the fore
R and aft bulkheads, and remove the splash back. (Ref.
R Detail C).

R (8) Remove the top stowage compartment door.

R (9) Remove the screws attaching the lintel assembly
R to the fore and aft bulkheads, and remove the
R lintel assembly.

R (10) Remove the screws attaching the stowage compartment
R back panel to the fore and aft bulkheads and shelf.
R Remove the back panel. (Ref.Detail.B).

R (11) Remove the screws securing the stowage compartment
R shelf to the channels on the fore and aft bulkheads
R and to the meal tray container assembly. Slide out
R the shelf. (Ref.Details.A & D).

R (12) Undo the screws and remove the cover at the bottom
R forward bulkhead to give access to the foot fittings.
R (Ref.Detail.F).

R (13) Remove the screws securing the forward bulkhead
R to the base panel assembly and remove the bulkhead.

R (14) Unlock the foot fittings on the base assembly and
R remove the base panel and meal tray container
R assembly.

R (15) Remove the bolts and separate the base panel
R assembly from the meal tray container assembly.

R (16) If damaged, remove the seals from the floor of the

R aircraft and clean the area using general purpose
R cleaning solvent.

D. Install

(1) Inspect the seals, if new seals are required, bond them to the aircraft floor with adhesive.

(2) Attach the base panel assembly to the meal tray container assembly using pan head and mushroom headed bolts and plain washers.

(3) Position and fit the base assembly to the seat rails and lock the foot fittings to the rails.

(4) Attach the forward bulkhead to the base panel assembly using pan head screws and spring washers. Seal the bulkhead to the galley base.

(5) Fit the cover to the bottom forward face of the forward bulkhead and secure with pan head screws and spring washers. (Ref.Detail F).

(6) Slide the stowage compartment shelf into the channels on the fore and aft bulkheads. Secure the shelf to the channels and meal tray container assembly using screws. (Ref.Details A & D).

(7) Attach the stowage compartment back panel to the fore and aft bulkheads and shelf using pan head screws and spring washers. (Ref.Detail B).

(8) Attach the lintel assembly to the fore and aft bulkheads using pan head screws and spring washers.

(9) Attach the top stowage compartment door using screws.

(10) Secure the splash back to the fore and aft bulkheads using pan head screws and spring washers. (Ref. Detail C).

(11) Attach the support panel to the fore and aft bulkheads and splash back using pan head screws and spring washers. (Ref.Detail C).

(12) Attach the worktop hinge to the meal tray container assembly with screws.

(13) Fit the gangway trapping strip and angle and seal the angle to the base. (Ref.Detail E).

R (14) Slide the lip of the trolley guides under the trapping strip and secure them to the base panel with screws.

R R R (15) Position the trolley guide tube assembly and secure it to the base panel and the forward bulkhead with pan head screws and spring washers.

R (16) Bond the splash guard to the fore and aft bulkheads and lift the lip of the sidewall trapping strip over the edge of the splash guard.

R (17) Seal all the base edges with sealant.

E. Conclusion.

(1) Install the curtain lintel and curtain at the forward end of galleys No.5 and 6.

(2) Connect the galley electric light plug located high in the adjacent amenity stowage.

(3) Replace the five meal tray containers and meal tray trolley and secure with the quick release latches.

(4) Fit the coat rail in its bracket if required.

(5) Reset the circuit breaker previously tripped.

Printed in England

NO.6 GALLEY - ADJUSTMENT/TEST

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS IN 24-00-00.

1. General

The operational test detailed below is to enable the galley electrical system to be proved. Controls used during the test are on the galley or on a circuit breaker panel in the flight compartment.

2. Operational Test - Galley Electrical System

A. Prepare to Test.

(1) Ensure that suitable POWER ON placards are prominently displayed on the aircraft.

(2) Make available electrical ground power as detailed in 24-41-00.

B. Test.

(1) Ensure that the FLT DECKS ROOF LTS SUP circuit breaker L232 on panel 14-215, map ref.C11, is set.

(2) Set the light switch on the galley lintel to "ON" and check that the galley fluorescent light is illuminated.

(3) Set the light switch on the galley lintel to "OFF"
R and check that the galley fluorescent light is
R extinguished.

R C. Conclusion.

(1) Disconnect electrical ground power as detailed in 24-41-00.

(2) Remove the POWER ON warning placards.

NO.7 GALLEY - DESCRIPTION AND OPERATION

RB 1. General (Ref. Fig. 001)

RB No. 7 Galley comprises a work-top surmounted by a top section
RB which houses a double oven, two oven controllers, two
RB beverage makers, a warming compartment and a sink unit, a floor
RB mounted waste bin stowage and space for three meal tray
RB trolleys and two beverage trolleys.

RB An electrical power supply is provided for the double oven,
RB beverage makers and the warming compartment. Provision is
RB made for the galley electrical load to be shed from the
RB supplying generators if necessary.

RB The galley is located centrally between electronic racks in
RB the rear vestibule immediately aft of the left and right-hand
RB rear service doors.

RB 2. Construction

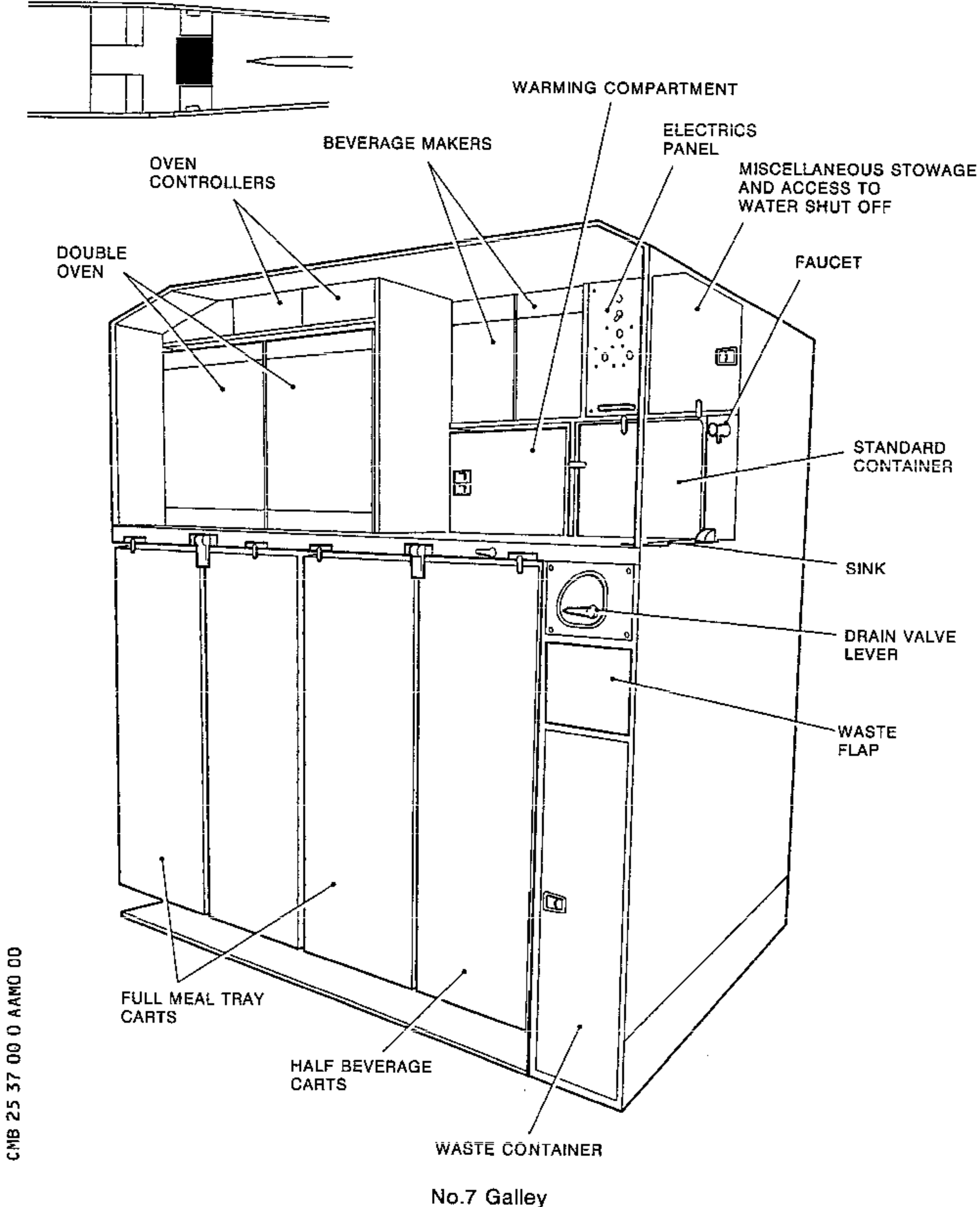
RB The top section and work-top are attached to each other by
RB screws and the assembly is located on the aircraft structural
RB frame brackets by bolts and to the electronic rack bulkhead
RB by spigots. The waste bin stowage is attached to the floor
RB by bolts and to the work-top by screws.

RB The controllers and ovens are attached to the galley structure
RB by the bolts and brackets.

RB The meal tray trolleys and half beverage trolleys are held in
RB position by quick release latches. The water system isolation
RB valve is located via Miscellaneous Stowage Compartment, to the
RB right of Warming Compartment Electrical Control Panel. Access
RB to the waste bin container is via a hinged door on the
RB right-hand front lower face of the galley. The door is secured
RB by a spring catch. Access to the sink drain valve is via a
RB hinged panel located beneath the work-top on the inboard side
RB of the waste bin stowage. The panel is secured by two spring
RB catches.

RB The galley aircraft interface overboard drain is secured by
RB hose clips. It passes through the floor and is directed
RB overboard via a drain mast.

RB Access panels in the aircraft bulkhead give access to the
RB galley electrical terminal blocks.



PRINTED IN ENGLAND

RB

No.7 Galley
Figure 001

RB 3. Air Extraction

RB An air extraction system is provided for oven cavity ventilation. The oven cavity is connected to the aircraft extraction system through a filter (Ref. 21-21-00 and 21-21-15).

RB 4. Electrical Power Supply

RB The electrical power supply for the galley is taken from No.1 main 200/115 V a.c. busbar through circuit breaker H1896 on circuit breaker panel 22-215, and from No. 4 main 200/115 V a.c. busbar through circuit breaker H1893 on circuit breaker panel 22-216.

PRINTED IN ENGLAND

RB 5. Water/Waste

RB The water system provides fresh water from the aircraft pressurized water storage tanks and supplies cold water to the galley sink and beverage makers. The waste system disposes of water from the sink by draining it overboard via a drain mast. Pressurized water from the aircraft rear galley pipe system is fed, via an isolation valve (Ref. 38-12-00 and 38-12-14) located at the top right of unit in Miscellaneous Stowage Compartment. A line drain valve (Ref. 38-12-15) is located in the right-hand wall of the meal tray stowage position beneath the boiler.

RB The waste water from the sink is drained overboard via a drain mast by operating a drain valve lever located on the face of the galley above the waste bin disposal flap. Access to the drain valve is via a hinged flap located under the work-top on the inboard face of the waste bin stowage.

RB 6. Operation

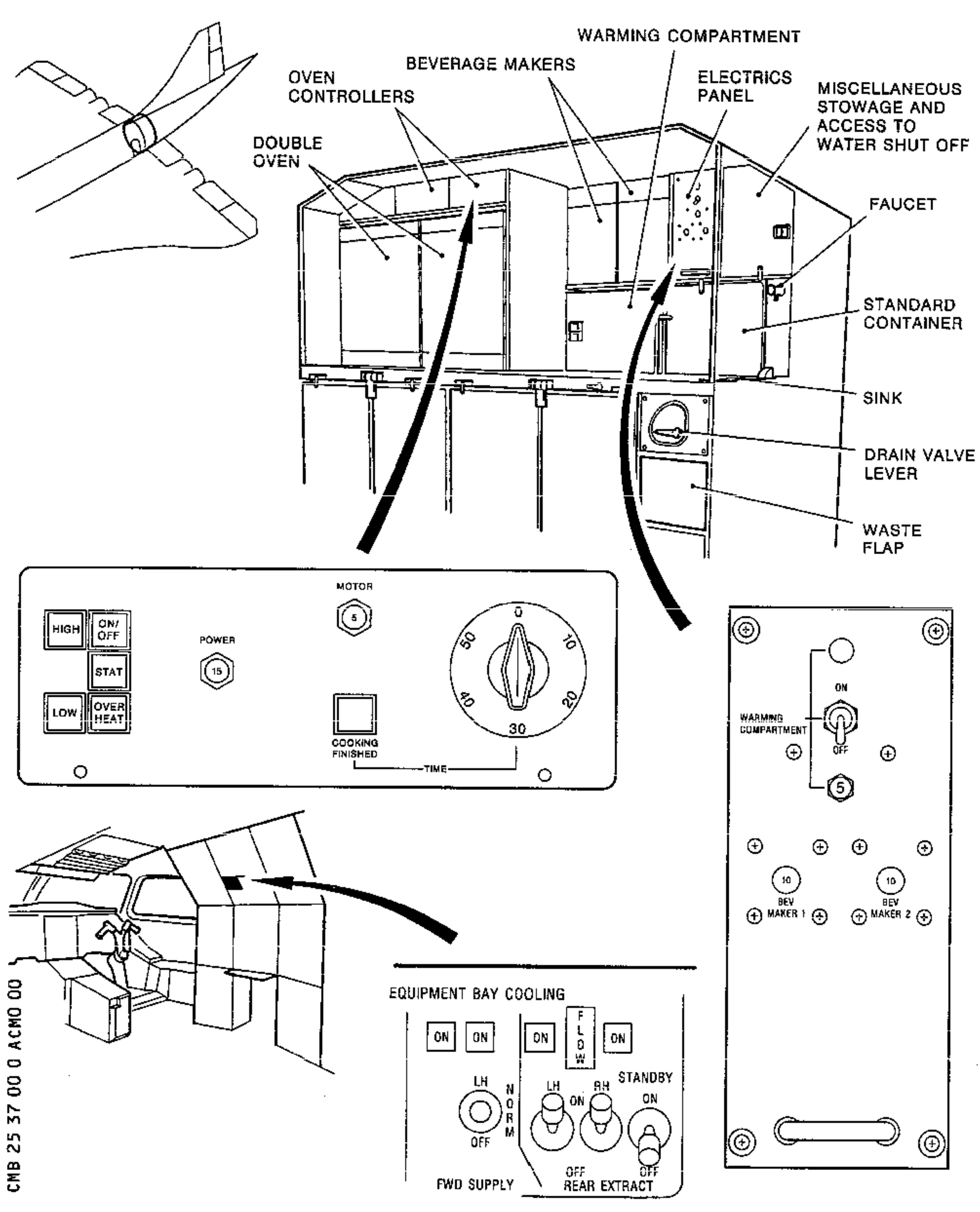
RB A. Controls and Indicators (Ref. Fig. 002 and 003)

RB The controls and indicators for the ovens are mounted on a control panel above each oven, those for the warming compartment on a vertical control panel to the side of Beverage Makers, and on a circuit breaker panel and the electrical services panel in the flight compartment. Controls on the face of each oven controller are:

RB Power ON/OFF Light Switch.

RB Temperature selection switchlights HIGH and LOW heat.

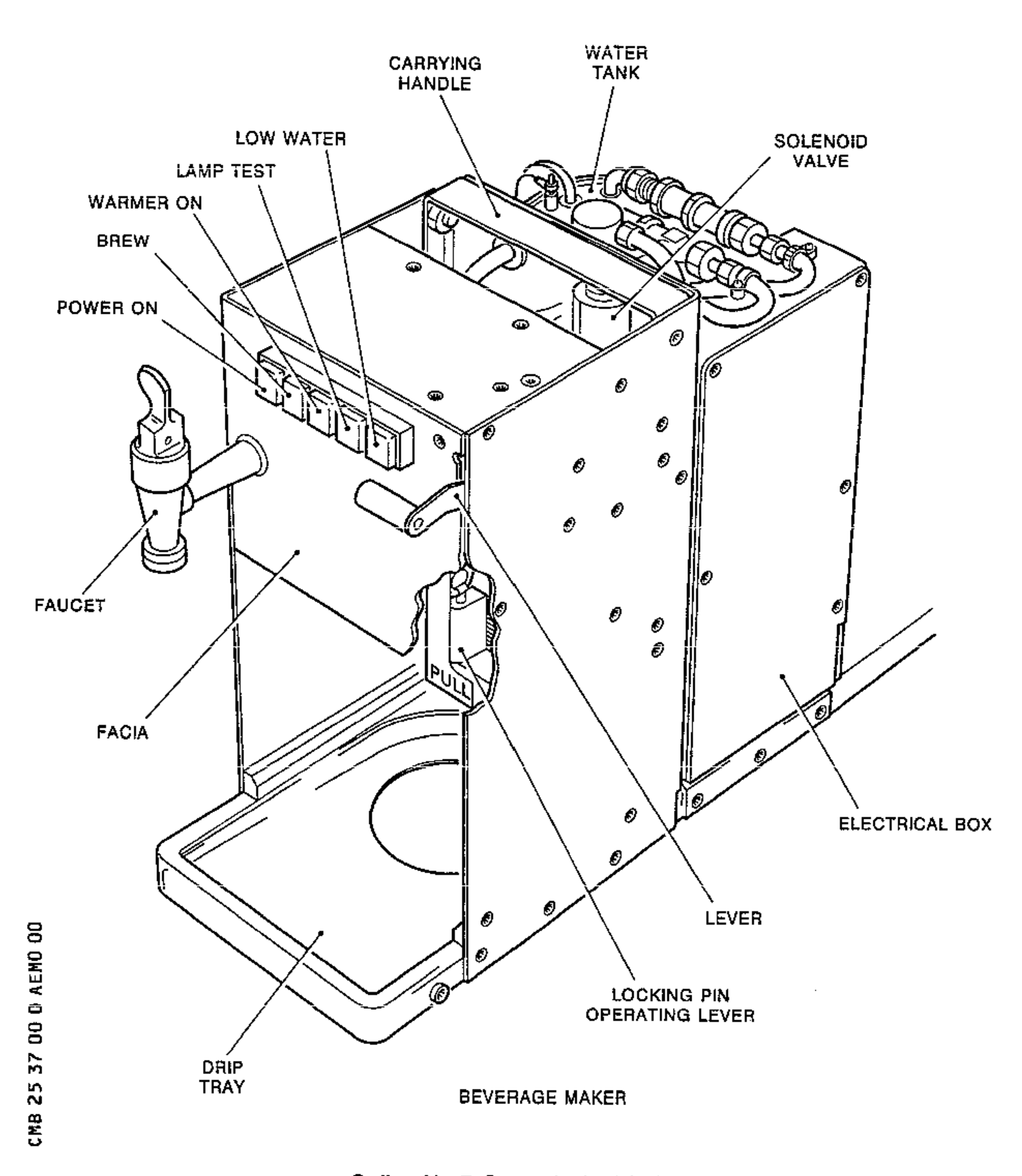
RB 0 - 60 minute timer (mechanical).



RB

Galley No.7 Controls and Indicators
Figure 002

PRINTED IN ENGLAND



RB

Galley No.7 Controls And Indicators
Figure 003

RB Main power 15 A circuit breaker.

RB 5 A circuit breaker for the Fan motor.

RB Indicators on the front of each oven controller are:

RB OVERHEAT (press to test) indicator switchlight.

RB STAT thermostat cycle indicator switchlight.

RB COOKING FINISHED warning lamp.

RB Controls on the Warming Compartment control panel are:

RB Warming compartment ON/OFF switch.

RB 5 A circuit breaker for Warming Compartment.

RB 2 10 A circuit breaker for Beverage Makers.

RB Indicators on the Warming Compartment control panel are:

RB Thermostat indicator light.

RB Controls in the flight compartment are:

RB On circuit breaker panel 22-215, No.1 MAIN AC BUS GALLEY SUP
RB circuit breaker H1896.

RB On circuit breaker panel 22-216, No.4 MAIN AC BUS GALLEY SUP
RB circuit breaker H1893.

RB On the electrical services panel at the 3CM station SHED
RB GALLEYS switches GEN 1 & 3 and GEN 2 & 4.

RB B. Functional Description

RB Provision is made for shedding the galley load from the
RB aircraft electrical distribution system, by setting the
RB GEN 1 & 3 and GEN 2 & 4 switches to SHED GALLEYS to
RB automatically cut the galley load from the supplying
RB generator (Ref. 25-00-00).

RB The electrical supplies are connected to two terminal blocks
RB on the forward face of the bulkhead behind the galley and
RB are routed to the ovens, beverage makers and the warming
RB compartment via circuit breakers and switches on the
RB appropriate control panel.

No. 7 GALLEY - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

No. 7 galley is located centrally between electronic racks in the rear vestibule immediately aft of the rear service doors. The galley must be partially dismantled for removal from, or installation in, the aircraft.

2. No. 7 Galley (Ref. Fig. 401)

A. Equipment and Materials

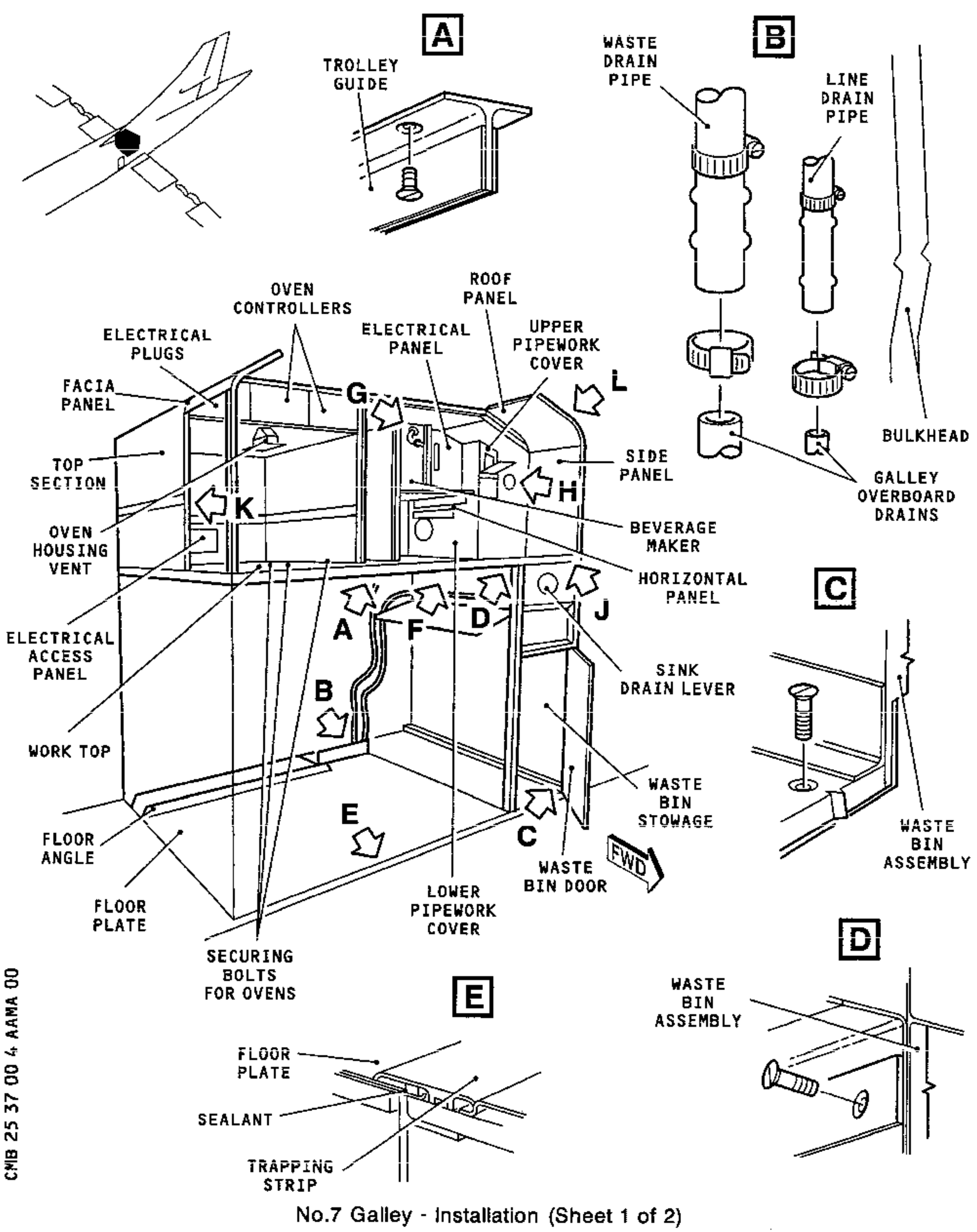
DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Sealant PR1422BT (Ref. 20-30-00, No.366)	-
Sealant PR1301 (Ref. 20-30-00, No.368)	-
General purpose cleaning solvent BACM 302 (Ref. 20-30-00, No.473)	-
Tape, self-adhesive waterproof 3 in (76 mm) wide CM 717 (Ref. 20-30-00, No.161)	-

B. Prepare

(1) Check that the power ON/OFF light switch on both oven controllers is set to OFF and the warming compartment on/off switch is set to OFF.

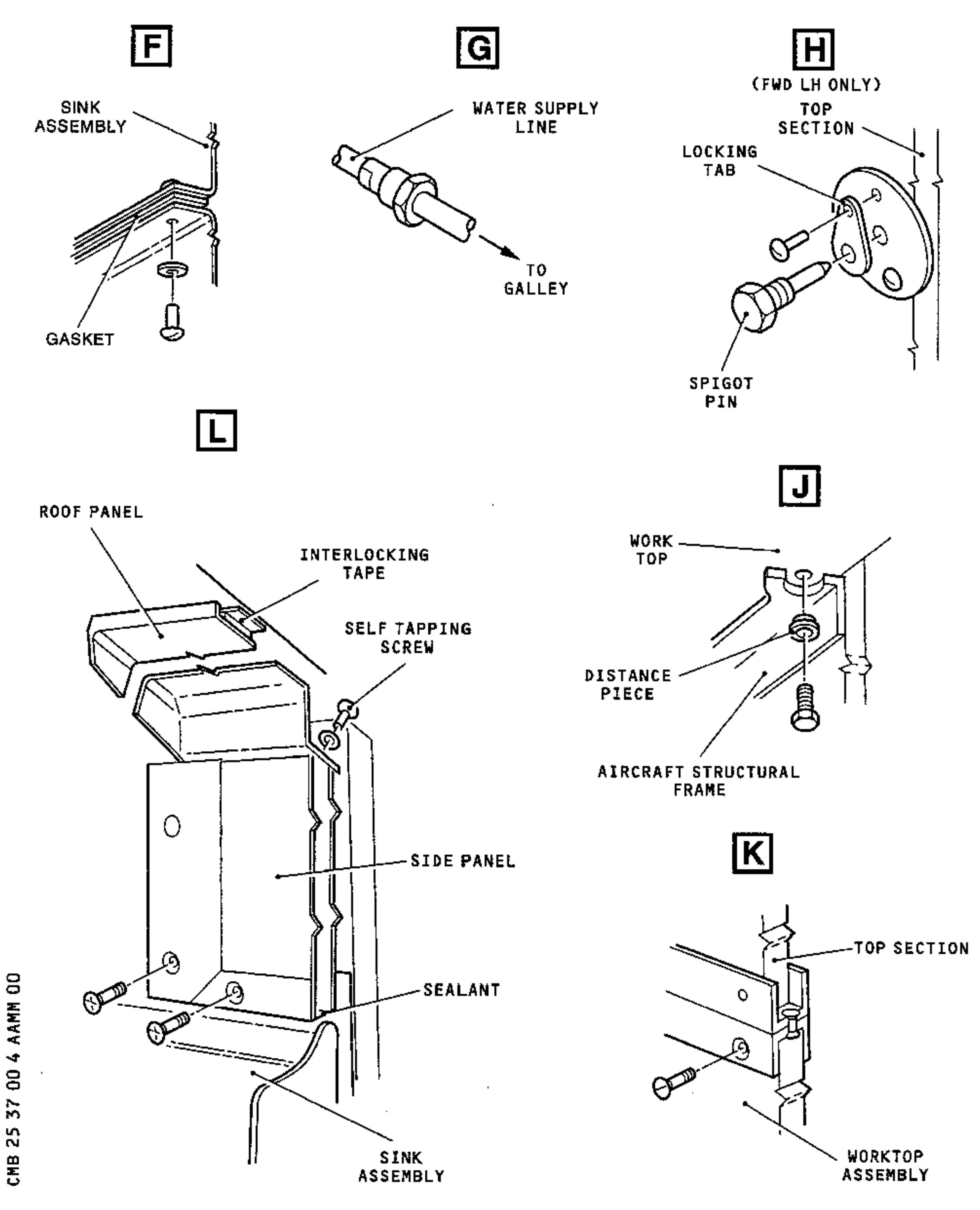
(2) Electrically isolate the galley by tripping the following galley circuit breakers and fitting safety clips:

PRINTED IN ENGLAND



No.7 Galley - Installation (Sheet 1 of 2)
Figure 401

PRINTED IN ENGLAND



No. 7 Galley - Installation (Sheet 2 of 2)
Figure 401

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
NO.1 MAIN AC BUS GALLEY SUP	22-215	H1896	-
NO.4 MAIN AC BUS GALLEY SUP	22-216	H1893	-

(3) Drain the aircraft water system (Ref. 38-11-00, Servicing).

(4) Release the quick release fasteners and remove the three meal tray containers, the three meal tray trolleys and two beverage trolleys.

(5) Remove the waste bin from below the sink unit.

(6) Remove the two beverage makers.

C. Remove

(1) Remove the four screws and two bolts and stiffnuts securing each of the three trolley guides to the underside of the worktop and aircraft structural frame and remove the guides.

(2) Remove the eight screws securing each of the left-hand and right-hand panels to the galley top section and worktop assembly, then pull downward on the edges of the roof panel sections to release the hook and loop self-attaching tape fastening. Remove the side and roof panel assembly. If required, separate the roof and side panels by removing the three self-tapping screws and washers.

(3) Remove the two bolts and front facia panel to the left of the oven controllers and disconnect the oven electrical plugs.

(4) Remove the six bolts securing the double oven to the worktop and remove the double oven assembly.

CAUTION: THE OVEN ASSEMBLY WEIGHS 100 lbs (45.4 kg.).

(5) Remove the seven screws securing each of the two electrical access panels in the rear bulkhead and disconnect the galley electrical supply at the aircraft interface terminal blocks.

(6) Remove the four screws securing the vent plate to the

oven housing vent and the two screws attaching the oven housing vent to the panel above the oven space. Remove the oven housing vent, complete with filter.

(7) Slacken the hose clips and disconnect the line drain pipe behind the waste bin stowage at worktop level. Access is from underneath the worktop.

(8) Slacken the hose clips and disconnect the line drain and waste drain pipes from the galley overboard drains. Place blank covers over the aircraft overboard drain pipe openings. Access is through an opening in the forward face of the freight hold bulkhead at floor level behind the waste bin stowage assembly.

(9) Remove the six countersunk head bolts securing the waste bin stowage to the aircraft floor. Disconnect the two halves of the sink by removing the fourteen screws and washers, and remove the five countersunk head screws securing the waste bin stowage to the worktop. Remove the drip tray trapping strip in front of the stowage and remove the waste bin stowage assembly.

(10) Disconnect the aircraft water supply line at the rear upper corner of the galley. Access to the upper pipe work and water shut-off valve is via the top RH access panel.

(11) Remove the locking tab and locking wire from the six spigot pins and unscrew the pins, three each side of the galley engaging with the aircraft structure.

(12) Remove the aft section of the oxygen control panel shroud above the right-hand service door, to permit the top galley section to be withdrawn.

(13) Unscrew the four bolts with distance pieces at each side, and the seven bolts across the back securing the top section and worktop assembly to the aircraft structural frame, slide the assembly forward until clear of the side angles and lower to the vestibule floor.

(14) Replace the oxygen control panel shroud.

(15) Separate the top section from the worktop assembly by removing the twenty three countersunk head screws and remove the two sections from the aircraft.

(16) Remove the twelve screws securing the floor angle and the sixteen screws securing the floor plate through the floor tray to the floor. Clean the old sealant from the floor plate and floor angle with general purpose cleaning solvent.

(17) Strip away the self-adhesive waterproof tape sealing the side and aft bulkhead-to-floor tray junctions, and remove the floor tray. Clean the old sealing compound from the tray with general purpose cleaning solvent.

(18) Remove the remaining sealing compound from the aircraft floor and clean the area using general purpose cleaning solvent.

D. Install

CAUTION: CARE SHOULD BE TAKEN TO AVOID DAMAGE TO THE FUEL TANK 11 VENTILATION DUCT SITUATED IN THE ROOF ABOVE THE GALLEY.

(1) Comply with the electrical safety precautions.

(2) Position the floor tray ensuring alignment with the floor plate screw holes. Seal the edge of the floor tray all round with sealant, then apply self-adhesive waterproof tape to seal the side and aft bulkhead-to-floor tray junctions.

(3) Position the floor plate on the floor tray and secure it with sixteen countersunk head screws. Wet assemble the screws (Ref. 20-22-14).

(4) Position the floor angle on the floor plate and secure it with twelve pan head screws. Wet assemble the screws (Ref. 20-22-14).

(5) Seal the edges of the floor plate and floor angle with sealant PR1422BT.

(6) Bring the top section and the worktop section into the aircraft and sub-assemble them in the vestibule using twenty three countersunk screws.

(7) Remove the aft section of the oxygen control panel shroud above the right-hand service door.

(8) Lift the top assembly in the vestibule to attachment angle height and slide aft to position on the aircraft structural frame. Secure at each side angle using eight hexagon head bolts with distance pieces and across the back with seven hexagon head bolts. Replace the oxygen control panel shroud.

(9) Screw the six spigot pins, three each side, through the top section into the aircraft structure. Lock the forward left-hand spigot with a locking tab and the other five spigots with locking wire.

(10) Connect the water supply line in the top left-hand corner.

(11) Position the waste bin stowage section beneath the sink unit and bed in mastic on the floor tray. Secure it to the aircraft floor using six countersunk head bolts. Connect the two halves of the sink, coating both faces of the sink gasket with sealant PR1301 (Ref. 20-22-29) and secure with fourteen pan head screws and washers, also secure the waste bin stowage to the worktop using five countersunk head screws. Replace the floor tray trapping strip forward of the stowage and bed it in sealant PR1422BT. Wet assemble the trapping strip screws (Ref. 20-22-14).

(12) At the opening in the forward face of the freight hold bulkhead at floor level behind the waste bin stowage, connect the waste drain and line drain pipes to the aircraft overboard drain pipes and secure the sleeves with hose clips.

(13) At worktop level behind the waste bin stowage, connect the line drain pipe and secure the sleeve with hose clips.

(14) Fit the oven housing vent in the panel above the oven space and secure it with two panhead screws, install the filter element and attach the vent plate using four screws.

(15) Remove the two electrical access panels at the rear of the galley and connect the electrical supply to the aircraft interface terminal blocks, connect the two earth cables from the oven controllers to the left hand earthing bracket and the earth cable from the boiler controller to the right hand earthing point. Replace the covers using seven screws.

(16) Install the double oven assembly and secure it to the worktop using six hexagon head bolts, which are inserted from below the worktop.

(17) Remove the facia panel to the left of the oven controllers and connect the oven electrical plugs to the sockets. Attach the facia panel using two mushroom head bolts.

(18) Attach the three trolley guides to the underside of the worktop using four screws into the worktop and two hexagon head bolts into the aircraft structural beam, for each guide.

NOTE: Ensure that the front and rear pair of bolts through the centre guide form an electrical bond (Ref. 20-27-11).

(19) Position each roof and side panel assembly, left and right-hand respectively, and secure each side panel to the galley top section and worktop assembly with eight countersunk head screws. Press firmly on the edges of the roof panel section to engage the hook and loop self-attaching tape fastening. Seal the gap between the side panel and the worktop with a bead of sealant PR1422BT.

NOTE: If the roof and side panels have been separated assemble the roof panel section to the side panel with three self-tapping screws and washers before installing the assembly on the galley.

E. Conclusion

(1) Check that all galley switches are off, and reset the circuit breakers previously tripped.

(2) Replenish the aircraft water system (Ref. 38-11-00, Servicing), and turn on the galley water supply.

(3) Install the two beverage makers.

(4) Carry out the checks given in 25-37-00, Adjustment/ Test.

(5) Replace the three meal tray containers, the three meal tray trolleys and the two beverage trolleys. Secure with the quick release latches. Replace the waste bin container beneath the sink unit.

Before SB 21-017

(6) Carry out a flow test of Tank 11 vapour seal (Ref. 21-25-00, Adjustment/Test).

No. 7 GALLEY - ADJUSTMENT/TEST

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The tests detailed below are to enable the following galley systems to be proved:
Potable water and waste water
Air conditioning (extraction)
RB Oven, beverage makers and warming compartment electrical.

RB Controls and indicators used during the tests are on the oven controllers, the warming compartment control panel, in the potable and waste water system (Ref. 38-00-00, Description and Operation) and on the equipment bay cooling panel at the 3CM station.

2. Potable Water and Water Waste Systems Test

A. Prepare to Test (Ref. Fig. 501)

(1) Ensure that the water system has been serviced in accordance with 38-11-00, Servicing.

RB (2) Make available electrical ground power as detailed in
RB 24-41-00.

RB (3) Set No.4 MAIN AC BUS GALLEY SUP circuit breaker H1893
RB on panel 22-216.

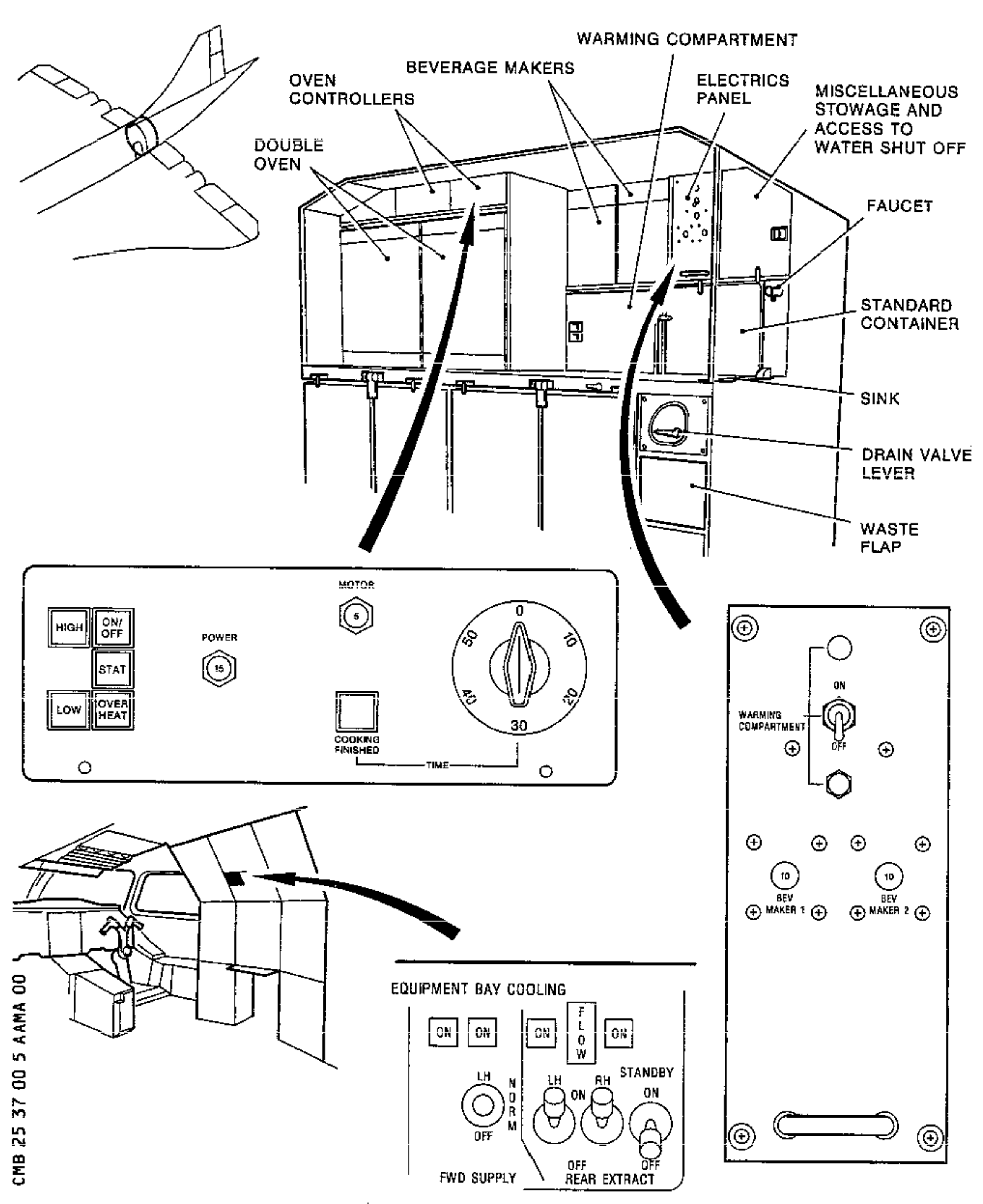
RB (4) Check the beverage makers are full by confirmation
RB that the low water indicator light is extinguished.
RB Check light is serviceable by pressing lamp test
RB switch.

RB B. Test

RB (1) Check beverage maker and sink faucet connections for
RB leaks and rectify as necessary.

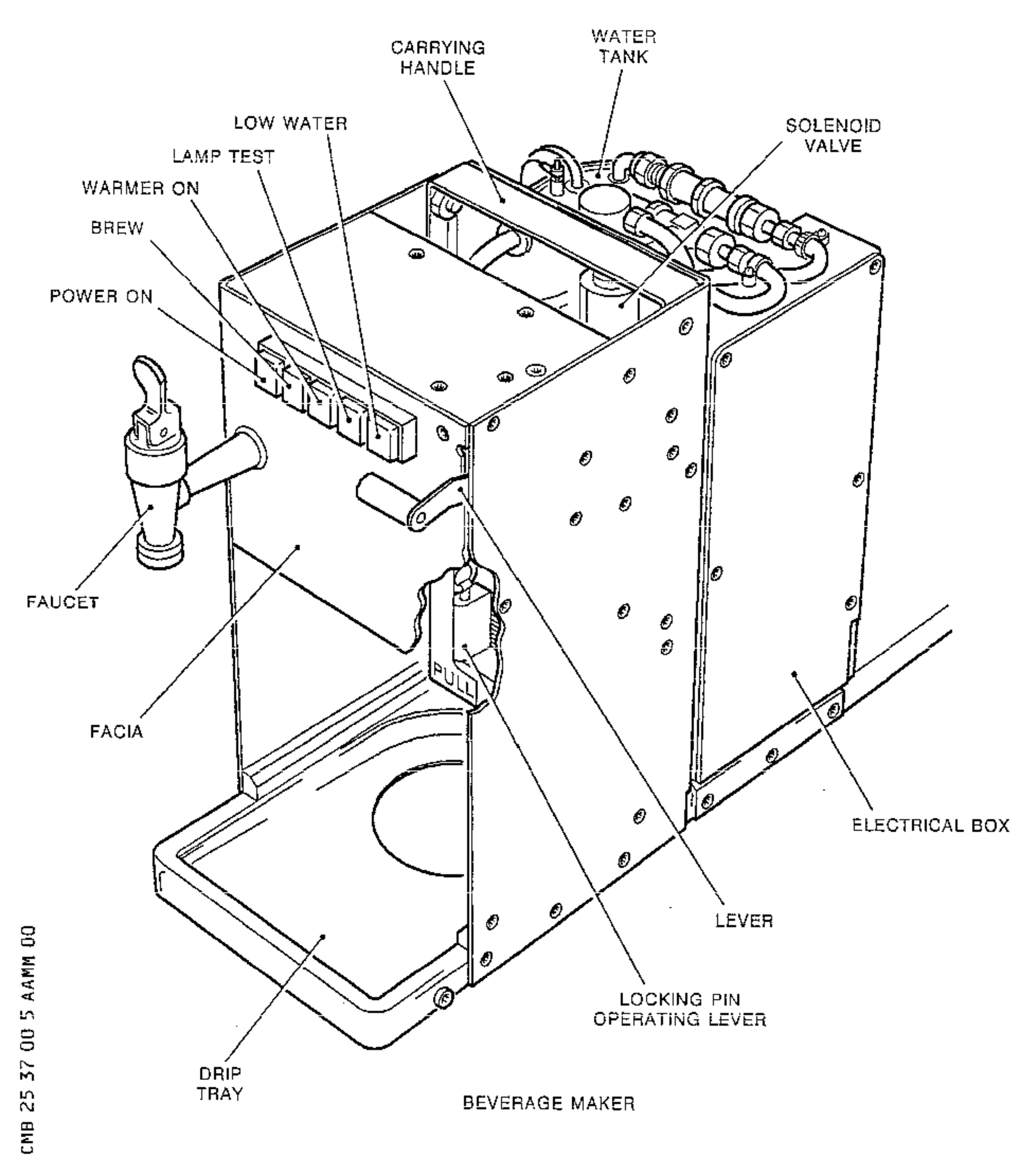
RB (2) Ensure empty serving containers are fitted correctly
RB in the beverage makers.

RB (3) Open the beverage maker faucets in turn, checking that
RB the water flows when the faucet is opened and ceases
RB to flow when the handle is released. Ensure that each
RB handle returns to the closed position.



RB

Galley No.7 Controls and Indicators
Figure 501 (Sheet 1 of 2)



RB

Galley No.7 Control And Indicators
Figure 501 (Sheet 2 of 2)

RB (4) With the sink plug closed, open the sink faucet checking that water flows when the faucet is opened and ceases to flow when the handle is released. Ensure the handle returns to the closed position.

(5) Operate the drain plug lever and check that the sink drains completely via the rear drain mast to atmosphere.

(6) Check that there are no leaks between the sink and the drain mast.

3. Air Conditioning (Extraction) System Test

A. Equipment and Materials (Ref. Fig. 501)

DESCRIPTION	PART NO.
Genie (Mini) oil free smoke generator	Concept Engineering

B. Prepare to test

(1) Make available electrical ground power as detailed in 24-41-00.

(2) Ensure that the air conditioning (extraction) system has been tested in accordance with 21-21-00, Adjustment/Test.

C. Test

(1) At the 3CM station, set the rear extract fans control switches, on the equipment bay cooling panel, to OFF.

(2) Ensure that the following circuit breakers are set:

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
LH REAR RACK EXTRT FAN SUP & CONT	13-215	1H1184	C1
RH REAR RACK EXTRT FAN SUP & CONT	14-216	2H1184	B20
REAR FLOW & LH FWD AIR SUP & REAR FAN IND	5-213	H1186	C9
COOLING FANS & LH FWD DUCT FLOW IND	5-213	H1187	C8

(3) With the two rear electronic rack air extract fan control switches on panel 2-214 at 'ON', aurally check that the fans are operating then, using the smoke generator, check that air passes from the vestibule into the interspace between the oven and the oven housing.

D. Conclusion

(1) Disconnect electrical ground power as detailed in 24-41-00.

RB 4. Operational Test Galley Electrical System (Ref. Fig. 501 Sht 1 and 2)

A. Prepare to Test

(1) Make available electrical ground power as detailed in 24-41-00.

RB (2) Check that all the power switches are 'OFF' and the
RB CBs are tripped on oven controller panel and the
RB warming compartment control panel.

RB B. Electrical Test - Oven Electrical System

RB NOTE: The following tests are to be carried out on both
RB ovens and controllers.

RB (1) Set No.1 MAIN AC BUS GALLEY SUP circuit breaker
RB H1896 on panel 22-216.

RB (2) Set or check setting of 15 A circuit breaker, on the
RB oven controller.

RB (3) Set master light switch to 'ON' position, check power
RB (Red) light is on.

RB (4) Turn timer knob to zero time.

RB (5) Set or check setting of 5 A circuit breaker, and check
RB the following:

RB (a) Buzzer gives audible warning signal and 'Cooking
RB Finished' lamp is lit.

RB (b) Fan motor in oven is operating.

RB (c) When 'Press-to-Test' overheat (Red) light knob
RB is pressed the light is 'ON' and when released,
RB the light is 'OFF'.

RB (d) 'STAT' light (White) is 'OFF'.

RB (6) Turn timer knob to approx. 5 minutes duration and
RB check that:

RB (a) Buzzer is off.

RB (b) Fan motor is still operating.

RB (c) 'STAT' light (White) is 'ON'.

RB (d) Heat is being circulated around oven interior.

RB (7) Check when timer knob returns to zero time, that:

RB (a) Buzzer gives audible signal, 'Cooking Finished'
RB warning lamp illuminated.

RB (b) 'STAT' light (White) is 'OFF'.

RB (c) Fan motor in oven is still operating.

RB C. Electrical Test - Beverage Maker Electrical System

RB NOTE: This test to be repeated for each beverage maker.

RB (1) Set No.4 MAIN AC BUS GALLEY SUP circuit breaker H1893
RB on panel 22-216.

RB (2) Ensure water supply is available to the beverage maker
RB (Galley tap open).

RB (3) Ensure an empty serving container is fitted correctly.

RB (4) Lower handle to 'STOP' position.

RB (5) Close the 10 A circuit breaker on the galley control
RB panel for the unit to be tested.

RB (6) Depress 'POWER ON' switch to 'ON'.

RB (7) 'POWER ON' light illuminates.

RB (8) Depress 'LAMP TEST'. All lights should illuminate.

RB (9) Check the unit is full of water by observing the
RB 'LOW WATER' light, when the 'LAMP TEST' light switch
RB is depressed. On release the light should extinguish
RB indicating sufficient water in the unit.

RB (10) Depress 'WARMER ON' switch to 'ON'. Switch
RB illuminates.

RB (11) Depress 'BREW' switch.

RB (12) 'BREW' lamp illuminates and hot water is forced
RB through brew head and into container below, when
RB water is at correct temperature.

RB (13) On completion of brew, 'BREW' lamp extinguishes.
RB Raise handle to remove server.

RB (14) Trip 'OFF' light switches, and isolate circuit
RB breaker.

RB (15) Repeat complete operation for second beverage maker.

RB D. Electrical Test - Warming Compartment Electrical System

RB (1) Set or check the setting of No.4 MAIN AC BUS GALLEY
RB SUP circuit breaker H1893 on panel 22-216.

RB (2) Close 5 A circuit breaker on the warming compartment
RB control panel.

RB (3) Set warming compartment control switch to 'ON', lamp
RB illuminates.

RB (4) Ensure compartment heats up, all elements operating.

RB (5) Ensure thermostat cycles correctly.

RB (6) Trip switch to 'OFF', isolate circuit breaker.

RB E. Conclusion

RB (1) Ensure power switches on oven controllers, beverage
RB makers and the warming compartment are 'OFF'.

RB (2) Disconnect electrical ground power as detailed in
RB 24-41-00.

RB

No. 7 GALLEY - APPROVED REPAIRS

1. General

No. 7 galley is located centrally between electronic racks in the rear vestibule, immediately aft of the rear service door. Terylene fabric reinforced rubber P-Seals are affixed to the galley R.H and L.H side panels to form a seal between the side panels and the electronic racks.

Seal renewal necessitates the removal of the side and roof panel assemblies (Ref. 25-37-00, Removal/Installation).

2. Side Panel Seals

A. Equipment and Materials

DESCRIPTION	PART NO.
Seal	E72601Q10452
Cleaning Solvent (Ref. 20-25-16,467)	BAC.M 302
Adhesive RUV 731 or Rhodorsil	
Elastomer CAF.H (Ref. 20-25-12).	-

B. Preparation

(1) Remove the damaged seal, using cleaning solvent to dissolve the adhesive.

(2) Clean residual adhesive from the side panel skin using cleaning solvent.

C. Repair

(1) Bond the new seal to the side panel skin with adhesive RTV.731 or Rhodorsil Elastomer CAF.H (Ref. 20-25-12). Ensure that the circular section of the seal abuts the inner edge of the vertical edge trim, and the end of the seal ubuts the inner edge of the lower edge trim.

(2) On completion of bonding, trim the seal to the length of the side panel.

B OVEN CONTROLLER (No.7 GALLEY) - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

Each compartment of the double oven is controlled by its own controller, located above the oven in the top section of the galley. The controller is secured by screws and anchor nuts, and is electrically connected to the appropriate oven compartment and aircraft electrical supply.

2. Oven Controller (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clip	-

B. Prepare

(1) Check that the POWER switch on the front face of each oven controller is set to "OFF".

(2) Electrically isolate the galley by tripping No. 1 MAIN AC BUS GALLEY SUP circuit breaker H1896 on panel 22-215 in the flight compartment, and fit a safety clip.

B C. Remove

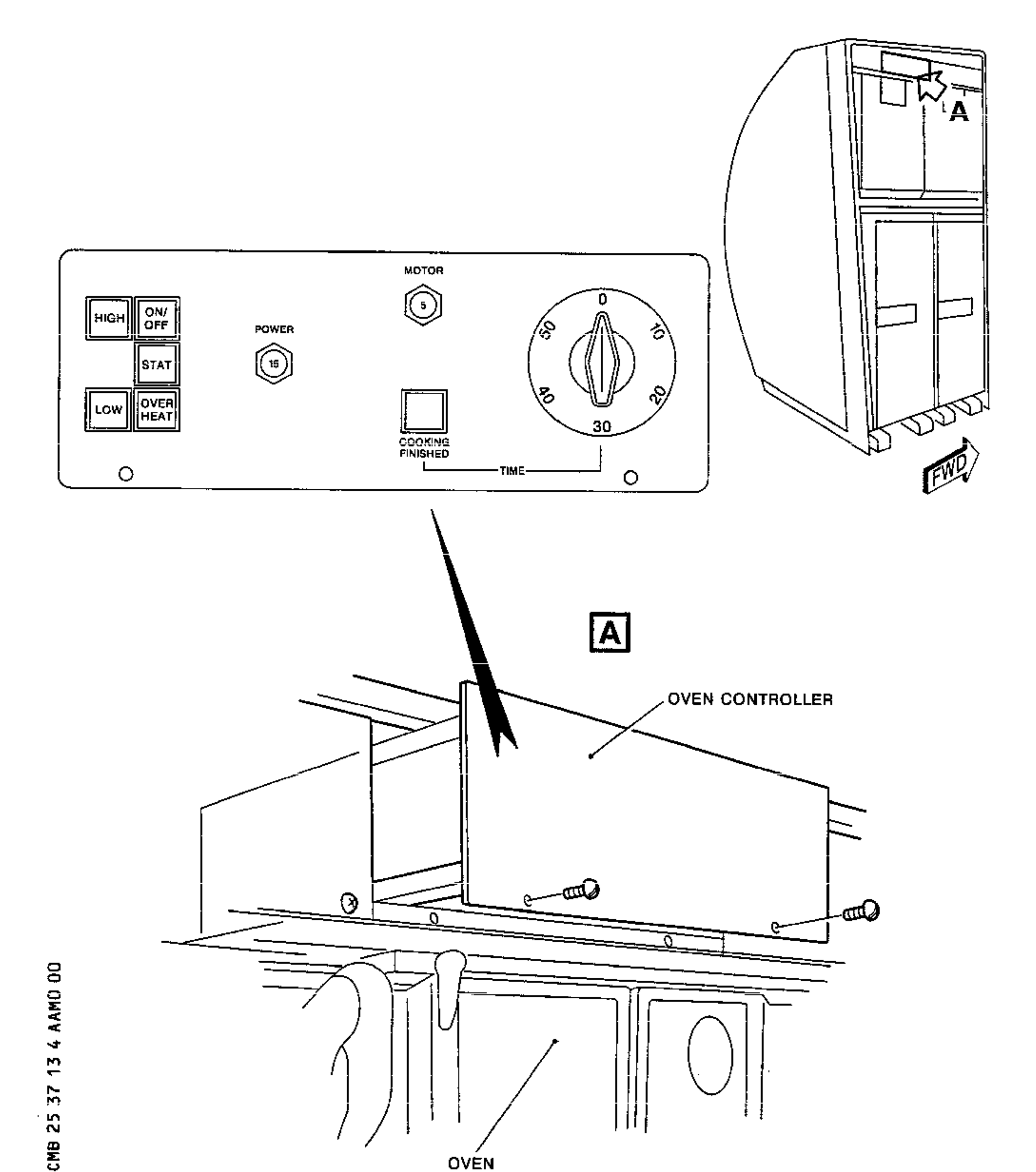
(1) Remove the screws securing the bottom edge of the appropriate oven controller to the edge of the top section shelf.

(2) Pull the controller forward to break the connections to the two electrical plugs at the rear. Remove the controller.

D. Install

(1) Observe the electrical safety precautions.

(2) Check that the electrical connectors are clean and undamaged.



PRINTED IN ENGLAND

RB

No. 7 Galley - Oven Controller - Installation
Figure 401

(3) Position the oven controller in its housing and push it fully rearward so that the two electrical plugs at the back of the controller engaged the associated electrical receptacle at the rear of the housing; secure the controller with the two screws.

RB E. Conclusion

(1) Check that the POWER switch on each oven controller is set to "OFF" and reset the circuit breaker previously tripped.

(2) Check the oven controller by carrying out an operational test on the oven electrical system (Ref. 25-37-00, Adjustment/Test).

END OF THIS SECTION

NEXT

TOILETS - DESCRIPTION AND OPERATION

1. General

Three toilets (No. 1, 2 and 3) are located on the aircraft providing identical facilities and layouts. Toilet No.1 is positioned on the forward right hand side, toilet No.2 and 3 are centrally positioned on the left hand and right hand sides of the passenger compartment.

Each toilet compartment is constructed in two separate sections, fore and aft bulkhead and LH bulkhead panel, to simplify removal and installation procedures. Each toilet is equipped with a WC bench unit, a vanity unit and cosmetic rack.

For replenishment of disposables, containers, clearance and cleaning of waste containers refer to 12-21-02.

2. Component Description (Ref. Fig. 001)

A. Fore and Aft Bulkhead

The fore and aft bulkhead provides provisions for securing the vanity unit, cosmetic rack and dispenser unit. A spigot on the lintel secures the bulkhead panel to the ceiling and a foot fitting on the side panel to seat track rail. An ashtray is provided on the outside of the bulkhead (gangway) to extinguish cigarettes.

B. Vanity Unit

The vanity unit runs the length of the fore and aft bulkhead, secured by a series of brackets and pan head screws. A moulded (polyethersulphome) sink unit incorporates a rear splash panel. Apertures around the sink bowl provide location for soap dispenser, faucet and plug plunger. A trash bin chute is positioned on the inclined area of the sink unit, with a spring loaded flap providing an air tight compartment.

Two flush fitting doors are positioned on the vanity unit. The trash bin door is locked by a pull latch, with two securing studs on the base. With the trash bin door removed the water compartment door is unlocked by releasing the dzus slide latch.

An air extraction grill set outboard of the vanity unit next to the toilet roll holder, vents the toilet compartment to the main landing gear bay (Ref. 21-21-00).

C. Dispenser Unit

The dispenser unit fixes to the top of the vanity unit and the fore and aft bulkhead. The unit follows the contour of the fuselage, forming a ceiling panel above the sink/worktop unit. Directly above the trash bin chute is mounted a smoke detector in the ceiling panel.

Various compartments are available for the stowage of tissues and linen towels, a spring loaded flap closes off the linen towel aperture when empty.

D. Shelf Assembly

The shelf assembly is positioned on the fore and aft bulkhead between the dispenser unit and cosmetic rack, secured by six screws through individual brackets. Illumination to the sink/worktop area and lower mirror is provided by a fluorescent tube directed by a lens bonded to the underside of the shelf. Removal of the lens gives access to replace tubes. On the curved panel is a large red CREW CALL button which illuminates when operated. A RETURN TO SEAT sign is activated by the crew to give the occupant a clear visible instruction.

E. Cosmetic Rack

The cosmetic rack assembly is secured to the (gangway) outboard bulkhead by a series of pan head screws. The console contains a cup dispenser capable of holding thirty cups, stowage of two drop out oxygen masks and a stowage compartment for various dispenser bottles.

An air freshener holder slides in and out from underneath the cosmetic rack.

The cosmetic rack cover detaches to give access to a spring loaded pin latch releasing the cosmetic rack door. The door swivels upon two pin hinges. An aluminum ashtray is set into the cover to extinguish cigarettes.

Two small fluorescent tubes, ballast and mounting brackets are mounted inside the cosmetic rack. The lens on the cosmetic rack door directs illumination onto the upper mirror and shelf assembly.

Fresh air to the compartment is ducted to a grille in the roof panel, which incorporates a plenum chamber to supply the air to a controllable louvre in the cosmetic rack door, via a flexible pipe.

F. Electric Razor Supply

An electric razor socket is mounted in the cosmetic rack. It is supplied via an inverter from No.1 main 28 V d.c. busbar, providing both 115 V a.c. and 230 V a.c.

G. Mirror

Two mirrors secured to the fore and aft bulkhead, one above and one below the shelf assembly, with strips of dual lock. The mirrors are 0.1 in. (2.5 mm) highly polished aluminum sheets bonded to a silicon rubber backing, with a back plate of aluminium to form a rigid fixing area. One large mirror covering the upper section of the left hand bulkhead secured by strips of dual lock with a protective edge strip along its base.

H. Door

The toilet door, when pushed, folds to the left-hand side to permit entry (Ref. 52-51-00). It is locked in the closed position by operating a sliding knob on the inner face of the door. This simultaneously moves the indicator plate from VACANT to OCCUPIED and inserts a locking bolt into the lintel. The bolt also actuates a microswitch in the door shut recess to illuminate the TOILET OCCUPIED sign and the toilet mirror lights (Ref. 33-22-00). On the inside of the door is a flush-fitting spring-loaded coat hook.

An actron lock assembly secures the door in the open position.

Two air vent grilles one on each door panel allow air to flow unrestricted, if the cabin pressure should drop.

J. WC Bench Unit

The bench unit is located on the outboard side of the toilet directly opposite the door. The bench conceals the WC tank and fittings. The unit comprises a removable top, front shrouds, and lower outboard panel secured by a dual lock. The WC flushing handle is set in a recess on the right hand side of the lower outboard panel.

K. Fire Extinguisher

An automatic BCF fire extinguisher is installed in each toilet. Each system has two detector heads with one in the waste disposal box and the other monitoring general electrical units beneath the wash bowl. Full details are given in chapter 26.

L. Carry-Cot Table (Toilet No.3)

A folding bassinette pivots between the dispenser unit and left-hand bulkhead. A turnbutton secures the table in the stowed position.

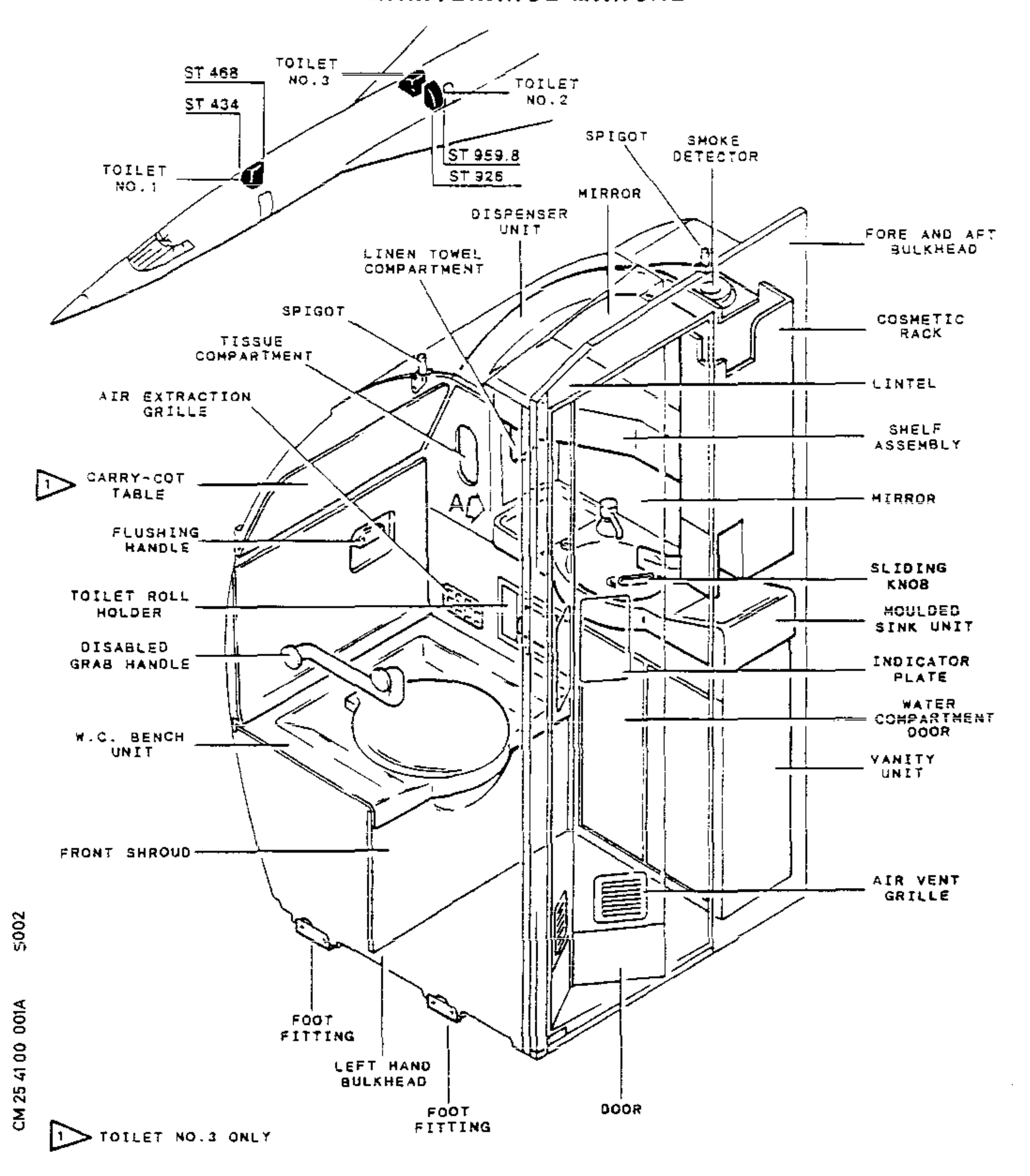
M. Left-Hand Bulkhead

A spigot on the top inboard edge mates with the lintel of the fore and aft bulkhead. A bracket secures the two units together. Foot fittings in two positions and a ceiling spigot secure the bulkhead panel to the aircraft structure.

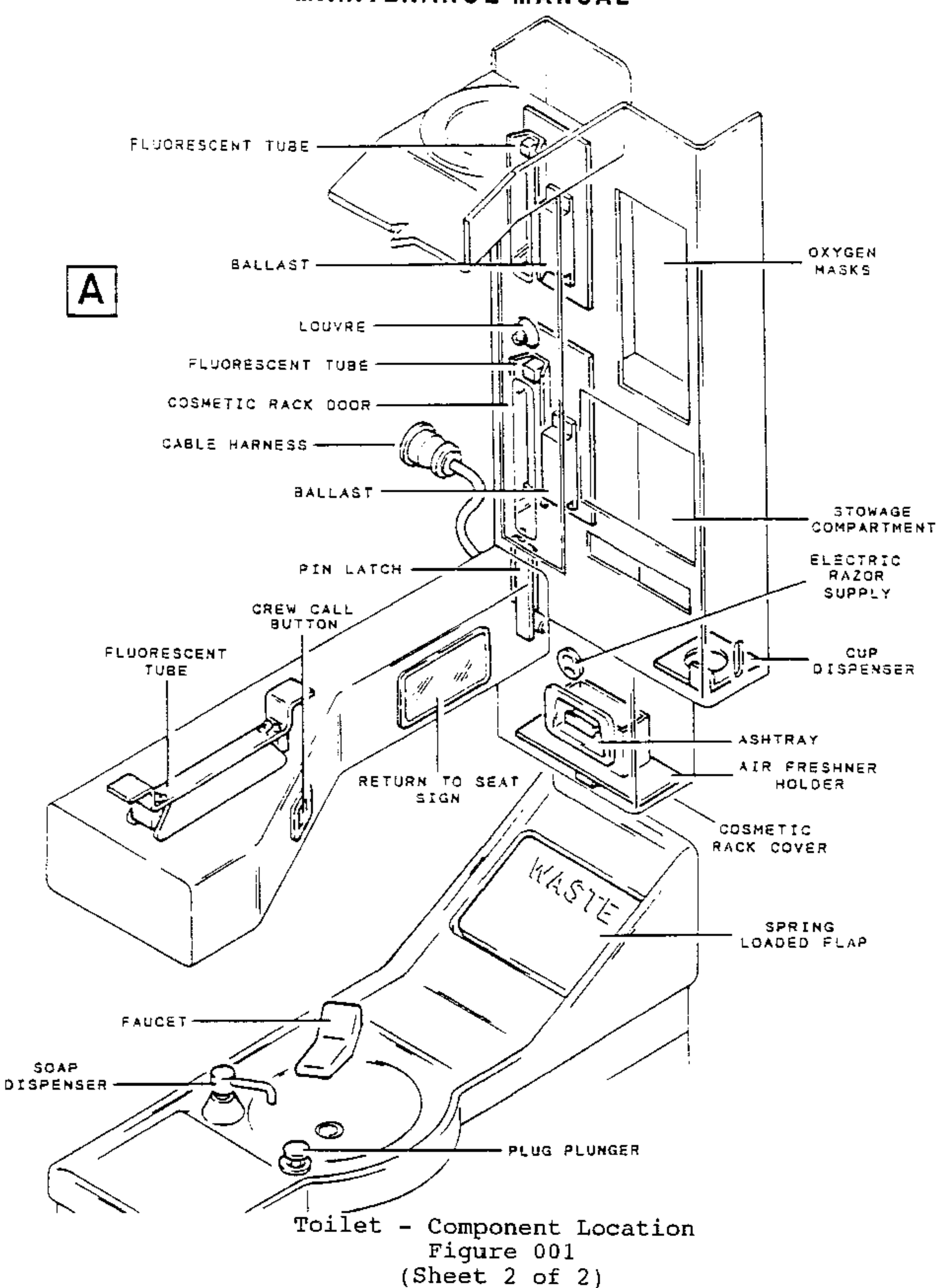
A disabled grab handle is positioned below the mirror.

N. Electrical Services

Power is supplied by a main aircraft cable loom connected to a loom on the fore and aft bulkhead lintel. The toilet cable loom dissipates the necessary power to various services.



Toilets - Component Location
Figure 001
(Sheet 1 of 2)



Toilet - Component Location
Figure 001
(Sheet 2 of 2)

TOILETS - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The razor outlets in the toilets are supplied by an inverter located in zone 221 and attached to the LH aft bulkhead of the forward vestibule. Cable connection is through two terminal blocks on the inverter.

2. Inverter, Razor Outlet Supplies

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-

B. Prepare

(1) Electrically isolate the inverter by tripping the razor outlet supplies circuit breaker M211 on panel 15-215, map ref. G5. Fit a circuit breaker safety clip.

(2) Remove the access door from the bulkhead

C. Remove Inverter

(1) Remove the cables from the inverter terminal blocks and earth stud.

(2) Remove the four screws and washers attaching the inverter to the bulkhead and remove the inverter.

D. Install Inverter

(1) Comply with the electrical safety precautions.

(2) Attach the inverter to the bulkhead with its four screws and washers, ensuring that it is the right way up.

(3) Connect the cables to the inverter terminal blocks

and earth stud in accordance with the cable identification and the appropriate wiring diagram.

E. Conclusion

(1) Refit the access door in the bulkhead.

(2) Remove the circuit breaker safety clip and reset the circuit breaker tripped previously.

R (3) Functionally test the razor outlet supplies system. (Ref. 25-41-00, Adjustment/Test).

TOILETS RAZOR OUTLET SUPPLIES - ADJUSTMENT/TEST

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The electric razor outlet in each toilet compartment receives 230 V a.c. and 115 V a.c. via the razor supplies inverter located in the forward vestibule.

The following test proves the razor outlet supplies after the installation of an inverter (Ref. Removal/Installation).

2. Razor Outlet Supplies - Functional Test

A. Tools and Equipment

DESCRIPTION	PART NO.
Multimeter	-

B. Prepare to Test

(1) Ensure that suitable POWER ON placards are prominently displayed on the aircraft.

(2) Make available electrical ground power as detailed in 24-41-00.

C. Test

(1) On panel 15-215 map Ref. G5, ensure that circuit breaker M211 is set.

(2) Using a multimeter, check that the correct voltages, 230 V a.c. and 115 V a.c., are present at the razor outlet in each toilet.

D. Conclusion

(1) Switch-off and disconnect electrical ground power as detailed in 24-41-00.

(2) Remove the POWER ON warning placards.

TOILETS - INSPECTION / CHECK

1. General

An Inspection/Check ensures that toilet furnishings, attachment fittings, and system connections are in a satisfactory condition, and that the surrounding areas have not been contaminated by the toilet fluids.

2. Toilet (Including System Connections)

A. Preparation

(1) Access to below floor areas:

TOILET	ACCESS PANEL	LOCATION
1	123 BB	Underside of fuselage.
2	131 VS	Lower baggage compartment.
3	132 VS	Lower baggage compartment.

(2) Access to above floor areas:

(a) WC bench unit: Remove bottom front panel.

(b) Toilet cabinet: Remove/open sink cabinet for access to water/waste piping.

B. Inspection

(1) Visually inspect all parts for cleanliness, damage and condition of protective treatments, including pipes below floor level to drain masts and service hatches.

(2) Examine the floor covering and driptray for wear, damage and corrosion. Also ensure that the fluid seal around the driptray is intact, has good adhesion and shows no signs of cracking, contamination or decomposition.

(3) Examine the toilet closet tank area for corrosion and indication of leakage or spillage of toilet fluids. Also ensure that the water service pipe and sump, charge and vent pipes are free from damage or decomposition.

C. Check

(1) Check all parts for security, including electrical bonding leads, where fitted.

(2) Check the satisfactory operation of each cabinet / container door; ensuring that the latches secure the doors in the closed position.

(3) Ensure that the speaker and oxygen systems in the toilet are serviceable.

(4) Check the toilet door:

(a) Ensure that the toilet entrance door operates smoothly without excess friction and self-closes from the open position.

(b) Ensuring that, when the door is closed and locked, the indicator plate shows OCCUPIED and the TOILET OCCUPIED and toilet mirror lights lluminate.

(5) Toilet Vanity Unit:

(a) Check the security of the attachment screws securing the moulded wash basin top to its base, and the sink and cabinet attachments to bulkhead and side wall panels.

(b) Ensure that the RETURN TO SEAT sign, electric razor socket, and steward call push switch are serviceable.

(c) Operate the faucet to fill the wash basin with hot and cold water, then release the faucet ensuring they return to the closed position. Ensure that water does not drip from the faucet.

d) Operate the drain valve lever to empty the wash basin; check that the water spills overboard from the drain mast, and that the drain pipes, within the toilet, do not leak.

3. Toilet Attachments

CAUTION: STRUCTURAL CORROSION CAN OCCUR IN AND AROUND THE TOILET AREA UNLESS A HIGH STANDARD OF CLEANLINESS IS MAINTAINED.

A. General

1) Visually inspect all parts listed in Table 601 for damage, corrosion and security. For attachments at and below wash basin level, pay particular attention to corrosion resulting from toilet fluid contamination. For attachments above the wash basin, inspect for signs of condensation, and distortion. Also inspect all attachment holes and where possible, surrounding areas for damage.

TOILET	ATTACHMENT FITTINGS	ACCESS
1	(1) Forward bulkhead foot fittings (2 off).	Remove No. 2 galley rear bulkhead, then remove No.1 toilet forward bulkhead.
	(2) Forward bulkhead roof spigot pin (1 off).	Remove roof panel and lower sidewall panel for access to spigot.
	(3) Bulkhead foot fittings located under toilet door threshold strip.	Open/remove toilet door (Ref. 52-51-21).
	(4) Fore and aft bulkhead to floor (1 bolt).	Remove fore and aft bulkhead.
	(5) Fore and aft bulkhead roof Spigot (1 off)	Remove roof panel (Ref. 25-41-17).

Table 601 (CONT.)

TOILET	ATTACHMENT FITTINGS	ACCESS
2	(1) Forward bulkhead foot fittings (2 off) include seat rails in vicinity of fittings.	Remove coat rail and pelmet from coat space. Remove toilet forward bulkhead.
	(2) Bulkhead foot fitting located under toilet door threshold strip	Open/remove toilet door (Ref. 52-51-21).
	(3) Fore and aft bulkhead roof spigot pin (1 off)	Remove roof panel (Ref. 25-41-17).
3	(1) Forward bulkhead foot fittings (2 off), including seat rails in vicinity of fittings.	Remove No. 2 toilet rear bulkhead, remove No. 3 toilet forward bulkhead.
	(2) Bulkhead foot fittings located under toilet door threshold strip.	Open/remove toilet door (Ref. 52-51-21).
	(3) Rear bulkhead to stewards seat post (2 bolts).	Remove the wall mirror (Ref. 25-41-12) and open the water heater access door.
	(4) Fore and aft bulkhead to floor (1 bolt)	Remove fore and aft bulkhead.
	(5) Fore and aft bulkhead roof spigot pin (1 off).	Remove roof panel (Ref. 25-41-17).

Table 601 (CONCLUDED)

TOILET MIRROR - REMOVAL/INSTALLATION

1. General (Ref. Fig. 401)

Three mirrors are mounted in the toilet compartment. Two are mounted on the fore and aft bulkhead, one above and one below the mid shelf assembly. The third is secured to the left-hand bulkhead, with a supporting strip running along its lower edge.

Each mirror is secured by lock attachment strips bonded to the back of the mirror and loop attachments strips (dual lock) bonded to the toilet partition.

2. Equipment and Materials

DESCRIPTION	PART NO.
Mirror Handling Tool (rubber suction pads with handle)	-

A. Removal of mirrors

(1) Attach the handling tool to the mirror face with the rubber suction pads near the edge of the mirror and adjacent to the attachment strips.

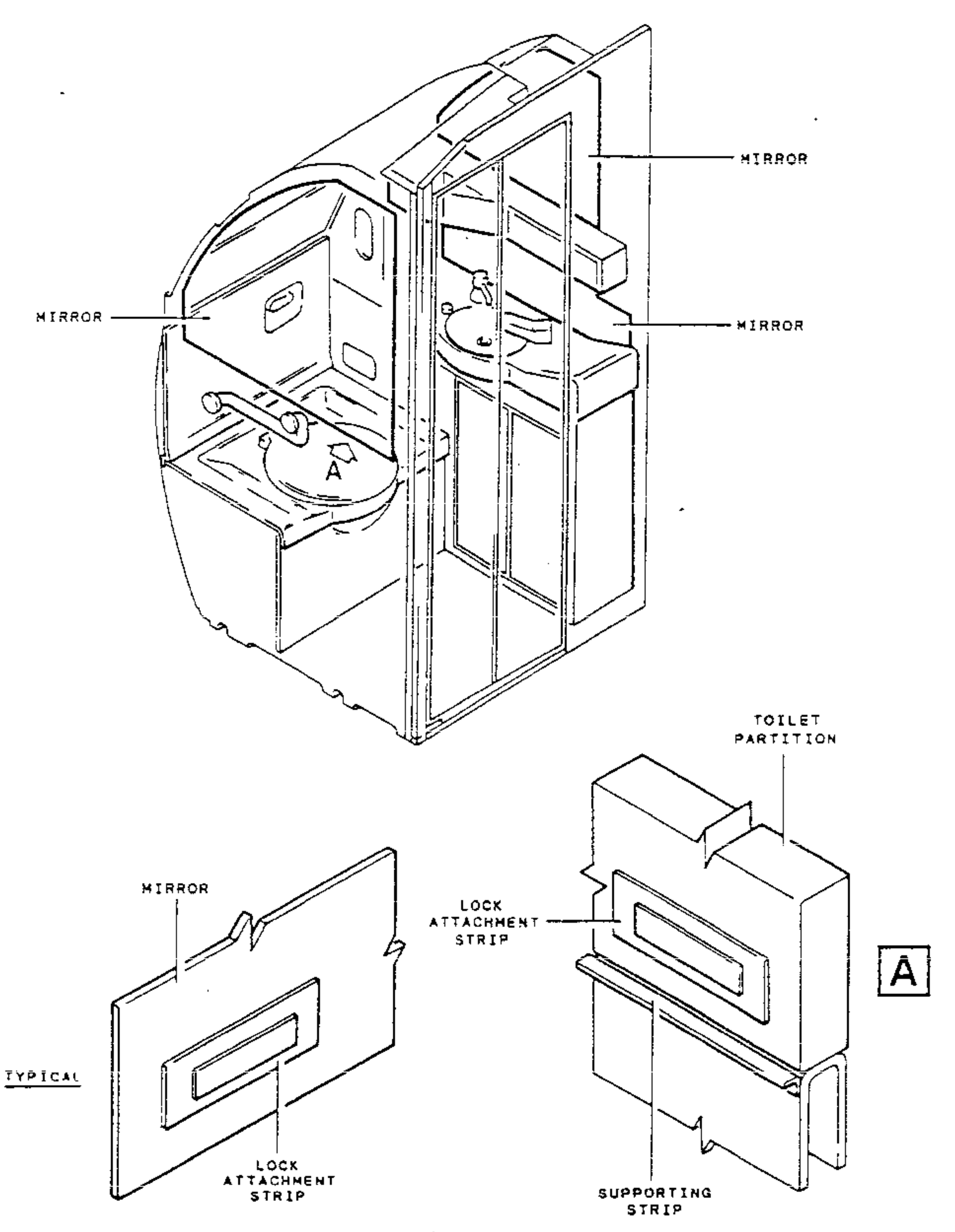
(2) Ease the mirror assembly away from the toilet partition, lifting slightly to clear the supporting angle and then lowering slightly to clear the interior trim at the top of the mirror.

(3) Remove the mirror from the toilet compartment and store the mirror carefully to avoid damage.

B. Install mirrors

NOTE: Ensure that the attachment strips on the toilet partition and on the back of the mirror are securely bonded and that the hooks and loops are undamaged. If damaged replace with new strips.

(1) Position mirror in required position, align strips of dual lock and press firmly to attach each strip in each location.



Toilet Mirror
Figure 401

TOILET No. 1

REMOVAL AND INSTALLATION

WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND SURROUNDS CLEAN AND FREE FROM CONTAMINATION.

OBSERVE THE OXYGEN SAFETY PRECAUTIONS DETAILED IN 35-00-00.

OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

Toilet No.1 is situated on the right hand side of the passenger compartment between stations 434-468.

To implement certain non-destructive testing, and maintenance procedures, the toilet compartment will need to be removed.

2. Equipment and Materials

DESCRIPTION
(a) Circuit breaker safety clips.
(b) Torque spanners 0-700 lbf in (0-8 mdaN).
(c) Water proofed fabric sealing tape 2 in (50mm) (Ref. 20-30-00).
(d) Sealant RTV 102.
(e) Sealant PR1422.
(f) General purposes cleaning solvent, BACM 302 (Ref. 20-30-00).
(g) Rubber suction pads (with handle).

2. Removal - Toilet Compartment, No.1

A. Preparation

(1) Drain the water system (Ref. 12-36-00).

(2) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
CTR LH TOILET WATER HTR SUP	14-216	M229	D17
TOILET MAIN LTS SUP	14-216	L985	C10
CABIN NIGHT LTS SUP	5-213	L455	D19
PA SUP	1-213	R139	K20
PASS CALL SUP	15-216	M78	A22
FASTEN S/BELT SUP	1-213	W191	L8
RAZOR OUTLET SUP	15-215	M211	G5

(3) Remove galley No. 2 (Ref. 25-32-00).

(4) Remove galley No. 3 (Ref. 25-33-00) aft of toilet No. 1.

(5) Remove toilet door (Ref. 52-51-12).

(6) Remove all loose equipment and toiletries.

(7) Remove toilet mirror (Ref. 25-41-12).

B. Remove Shrouds (Ref. Fig. 401)

CAUTION: HANDLE ALL PANELS WITH CARE TO AVOID MARKING OR DAMAGING PANELS AND DECORATIVE COVERING.

(1) Grasp the edge of ceiling panel (2), pull panel downwards releasing dual lock.

(2) Disconnect flush mechanism to flush handle (3) (Ref. 38-41-15). Pull outboard panel (6) edges firmly, releasing dual lock.

(3) Pull edges firmly on air vent panel (7) releasing dual lock.

(4) Pull lower edges firmly on ceiling panel (1), pull upper edges firmly releasing dual lock.

(5) Slide top panel and toilet seat (5) inboard and remove.

(6) Pull front panel (4) side edges firmly to release dual lock.

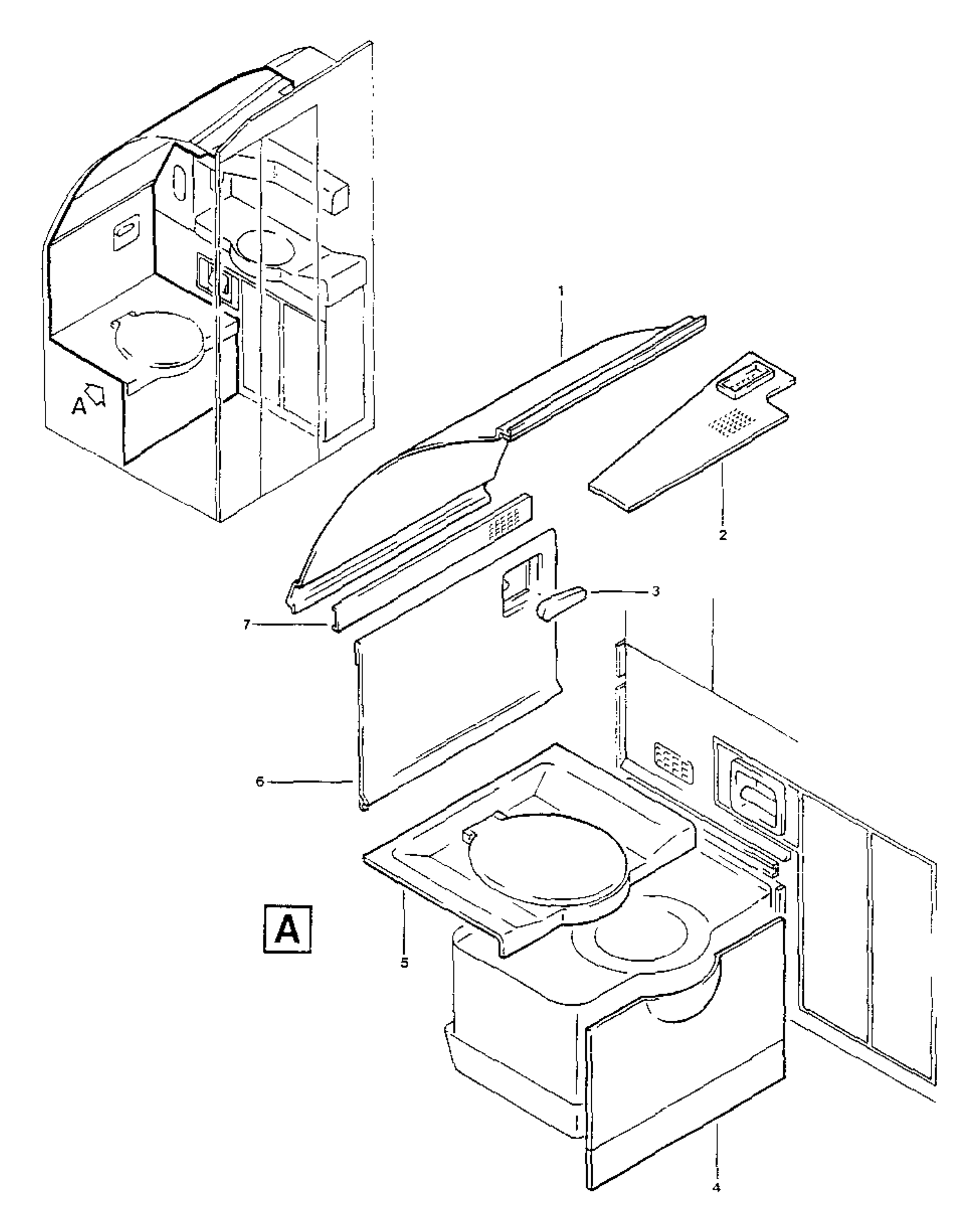
\- C. Remove Compartment Doors (Ref. Fig. 402)

(1) Trash Bin Door

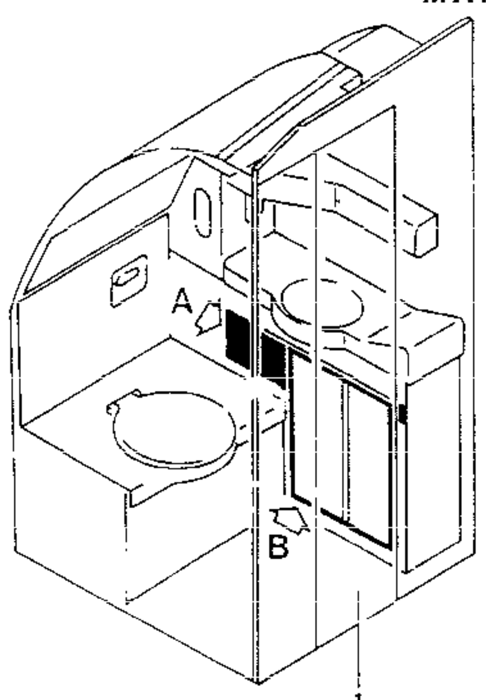
(a) Pull latch (10) outwards to release from strike plate (8) on vanity unit.

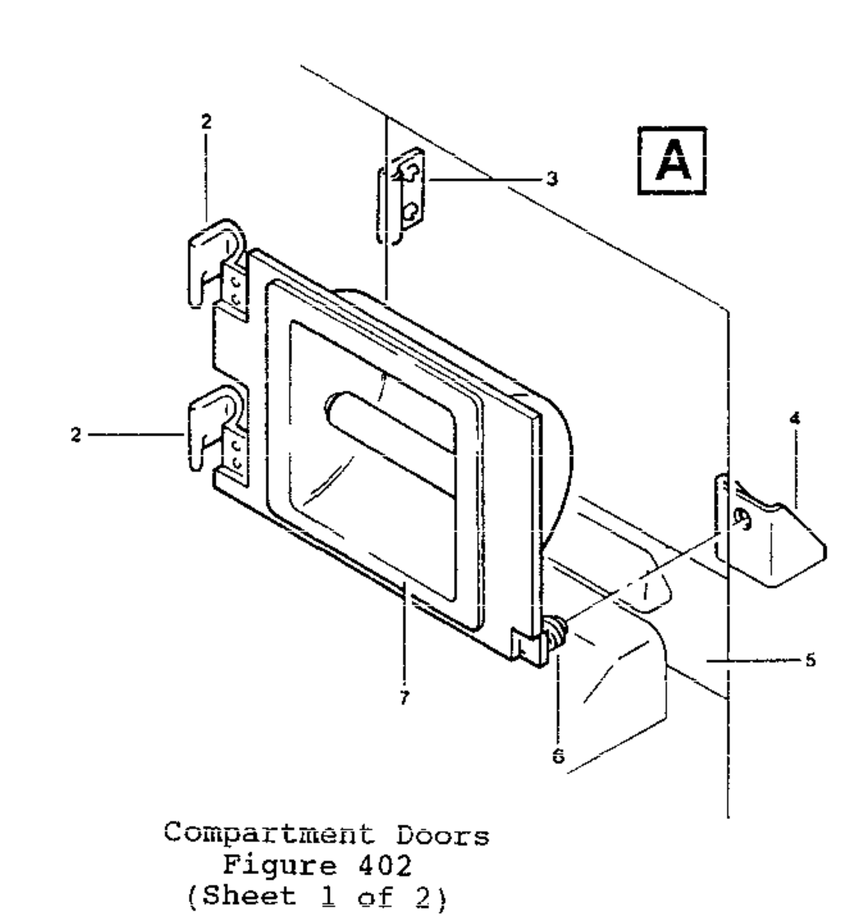
(b) Once unlatched lift the door (11) upwards to clear the securing studs (12) on the base.

(c) Remove trash bin and store in a safe place.



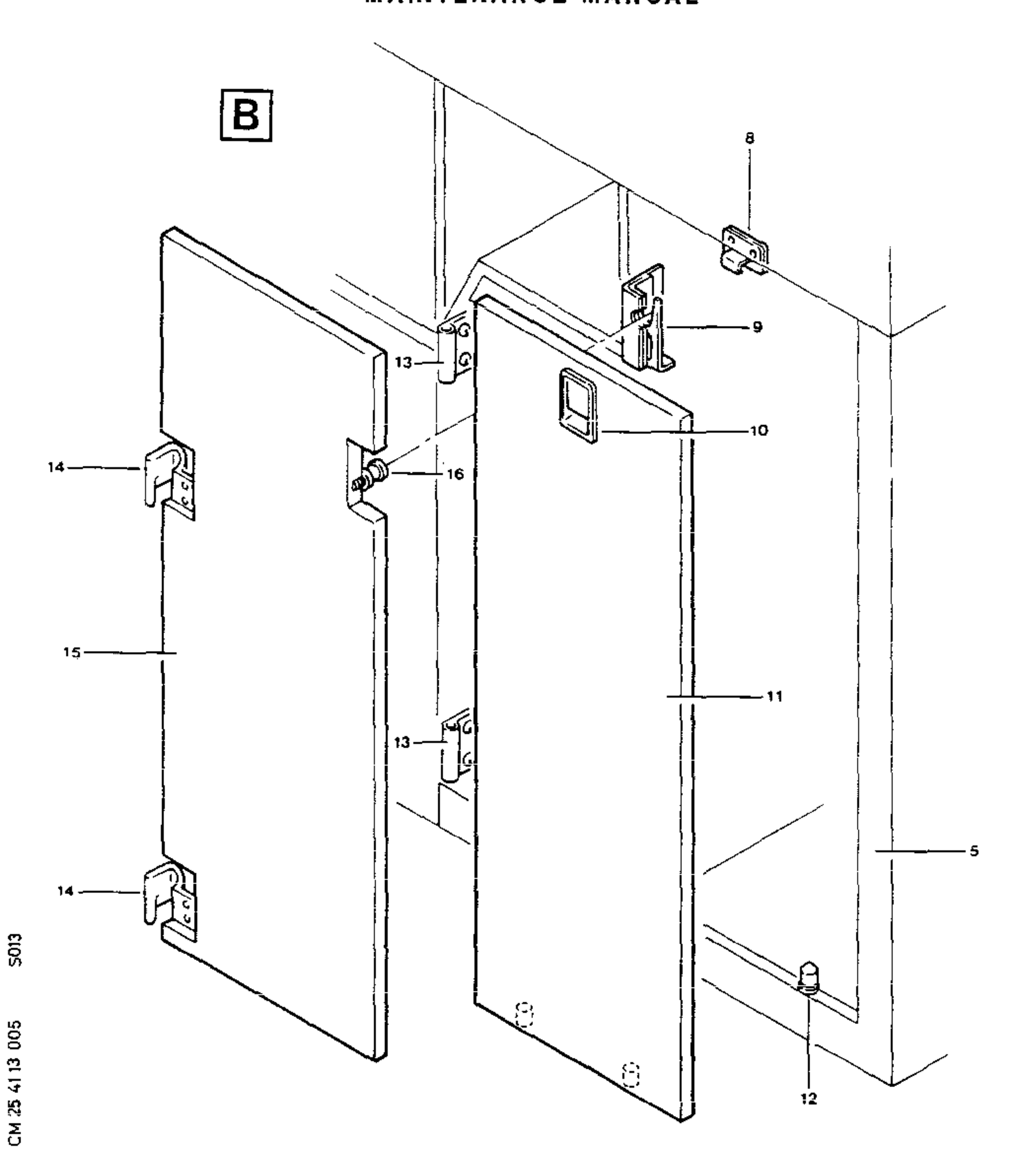
Shrouds
Figure 401





CM 25 41 13 004 S012

Compartment Doors
Figure 402
(Sheet 1 of 2)



Compartment Doors
Figure 402
(Sheet 2 of 2)

(2) Water Compartment Door

(a) From inside trash bin compartment against side wall, pull latch keep (9) downwards to release bin (16).

(b) Swing door open sufficiently to lift door (15) upwards to release hinge pins (14) from hinge plates (13).

(3) Toilet Roll Holder

(a) Push bottom right hand corner of toilet roll holder (7), to release pin latch (6) from bracket (4).

(b) Swing toilet roll holder (7) open sufficiently to lift assembly upwards releasing hinge pins (2) from hinge plates (3).

(c) Lift toilet roll holder (70 away from vanity unit (5).

D. Remove Standing Area Drip Tray (Ref. Fig. 403)

(1) Remove countersunk screws (7) from floor threshold (4).

(2) Re-install screw (7) one only into angle to support gangway bulkhead.

(3) Cut the bead of sealant (5) between the floor and drip tray.

(4) Carefully cut waterproofed fabric sealing tape (3) along drip tray flange joining outboard drip tray (8).

(5) Lift drip tray (2) from the forward facing edge, and slide clear of vanity unit (1).

(6) Clean both the floor area and drip tray from sealant using cleaning solvent BACM 302.

E. Remove Toilet Waste Pipes (Ref. Fig. 404)

(1) Disconnect sluice pipe assembly (5) and water supply pipe (4) from top of toilet bank (12) (Ref. 38-31-11).

(2) Disconnect pneumatic flush pipe from air reservoir tank (Ref. Removal/Installation Pneumatic Flush Lines, Figure 405).

(3) Remove toilet tank (12) (Ref. 38-31-11).

(4) Slacken work drive clips (14) and slide sluice pipe assembly (5) and joint sleeve (15) clear of stub pipe (16) on air flush valve (1).

(5) Slacken worm drive clips (9) and slide joint sleeve (10) down pipe assembly (5) clear of stub pipe (11) on air flush valve (1).

(6) Disconnect union (3) from corner fitting (2) on supply pipe (13).

(7) Slacken worm drive clips (7) and slide supply pipe (13) and joint sleeve (8) upwards clear of stub pipe in floor (6).

F. Remove Pneumatic Flush Lines (Ref. Fig. 405)

(1) Disconnect lower elbow (5) from air reservoir on side of toilet tank.

(2) Remove toilet tank (Ref. 38-31-11).

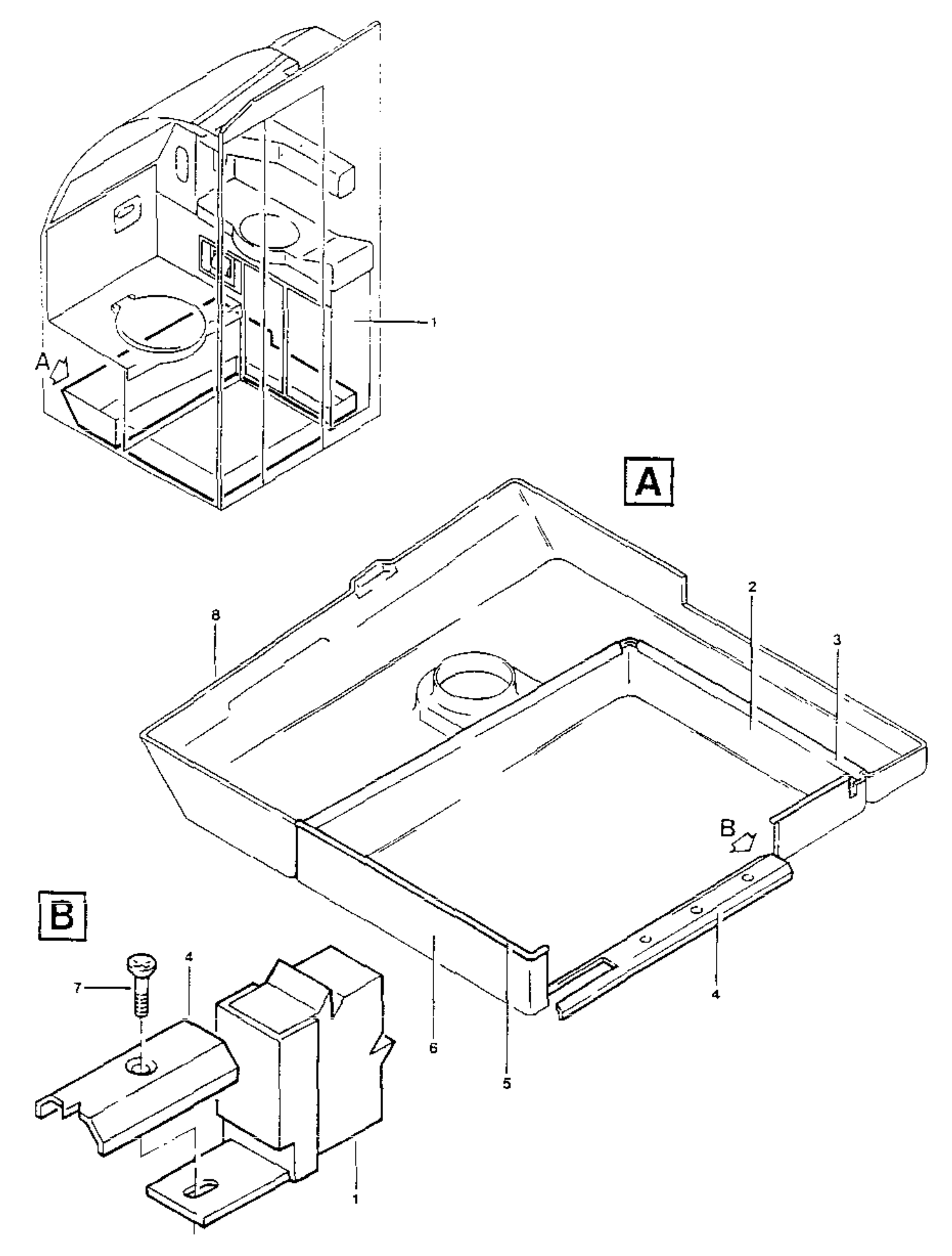
(3) Disconnect side supply pipe (4) from tee piece (8).

(4) Disconnect floor connection (7) and connection to tee pieces (8). Remove lower air supply pipe (6).

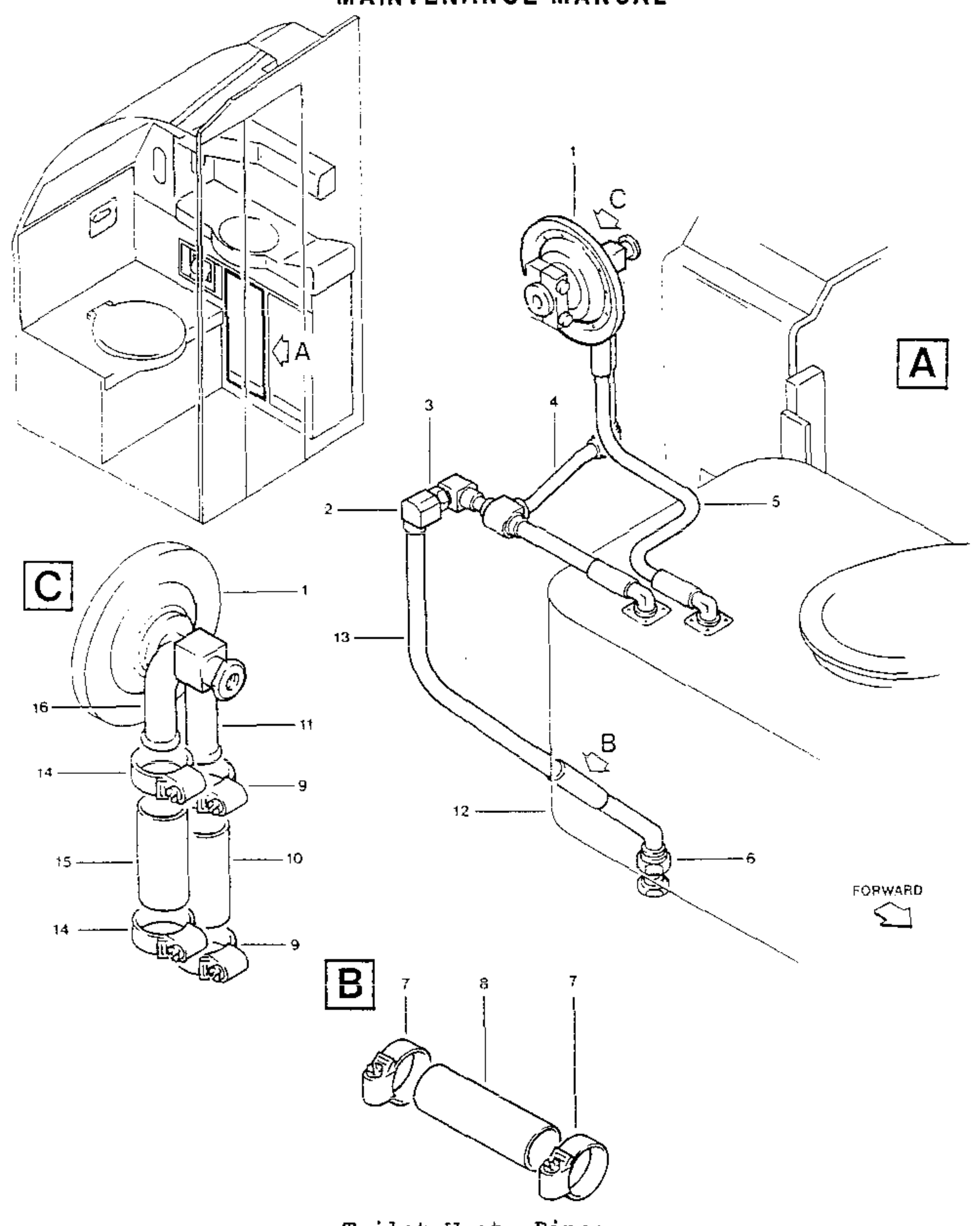
(5) Disconnect tee piece (8) from upper air supply pipe (3).

(6) Disconnect air supply pipe (3) from corner fittings (2) and corner fitting air flush valve (1).

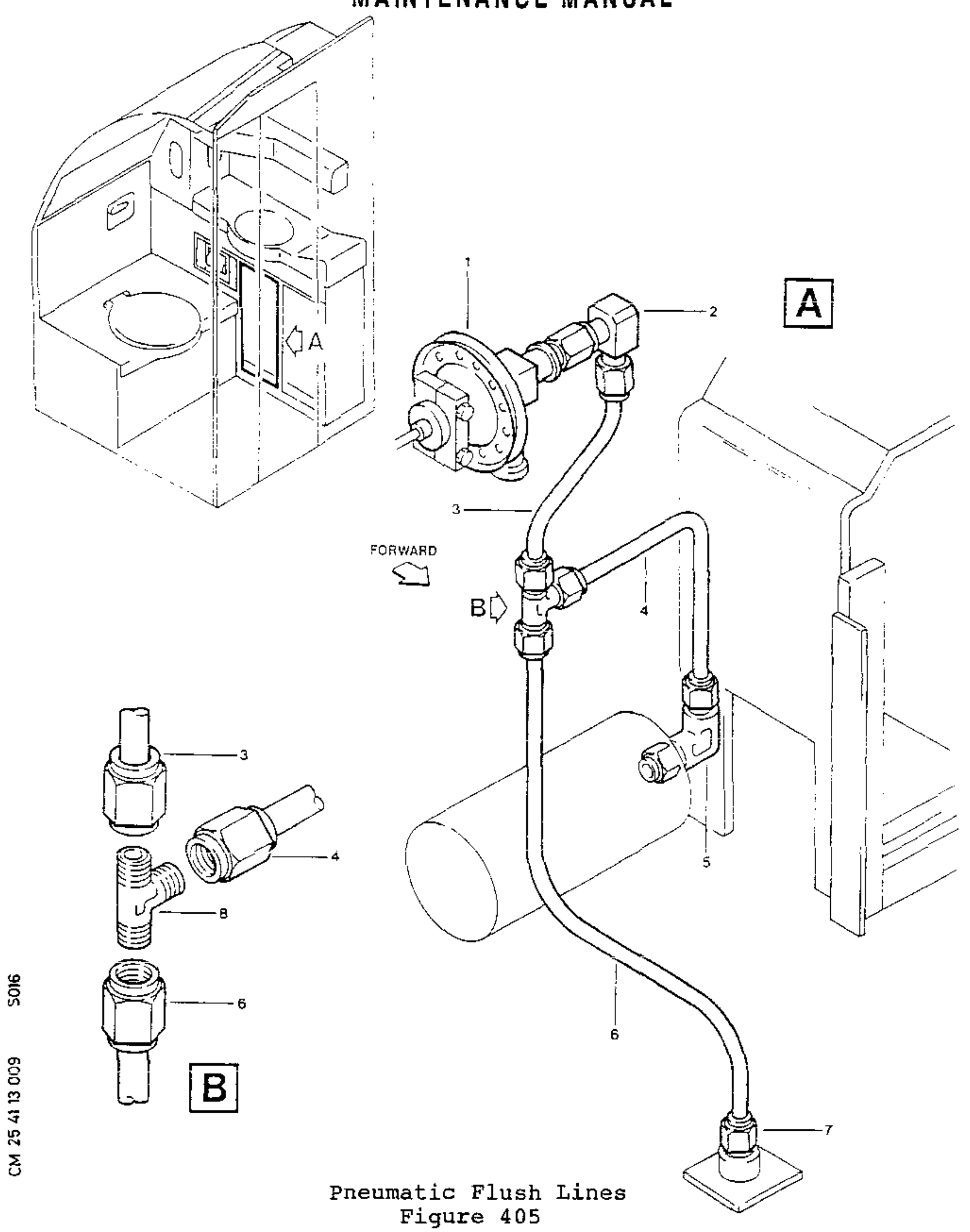
(7) Disconnect and remove air flush valve (1) (Ref. 38-41-15).



Standing Area Drip Tray
Figure 403



Toilet Waste Pipes
Figure 404



Pneumatic Flush Lines
Figure 405

G. Remove Sink Waste Water Pipes (Ref. Fig. 406)

(1) Slacken worm drive clips (7) and slide joint sleeves (9) free from sink waste connection (2) and water overflow valve connection (3).

(2) Ease sink waste pipe (4) from position and remove from compartment.

(3) Slacken worm drive clips (6) slide joint sleeves (8) free from sink overflow connection (1) and water overflow valve connection (3).

(4) Ease waste pipe (5) from position and remove from compartment.

(5) Remove water overflow valve (3) (Ref. 38-31-18).

H. Remove Water Supply in Vanity Unit (Ref. Fig. 407)

(1) Remove grommet from aperture around top connection on water heater (3).

(2) Remove pan head screw (11) from toilet wall and remove P-clip (10) from pipe assembly (8).

(3) Slacken end fittings (12) and (7), remove pipe assembly (8).

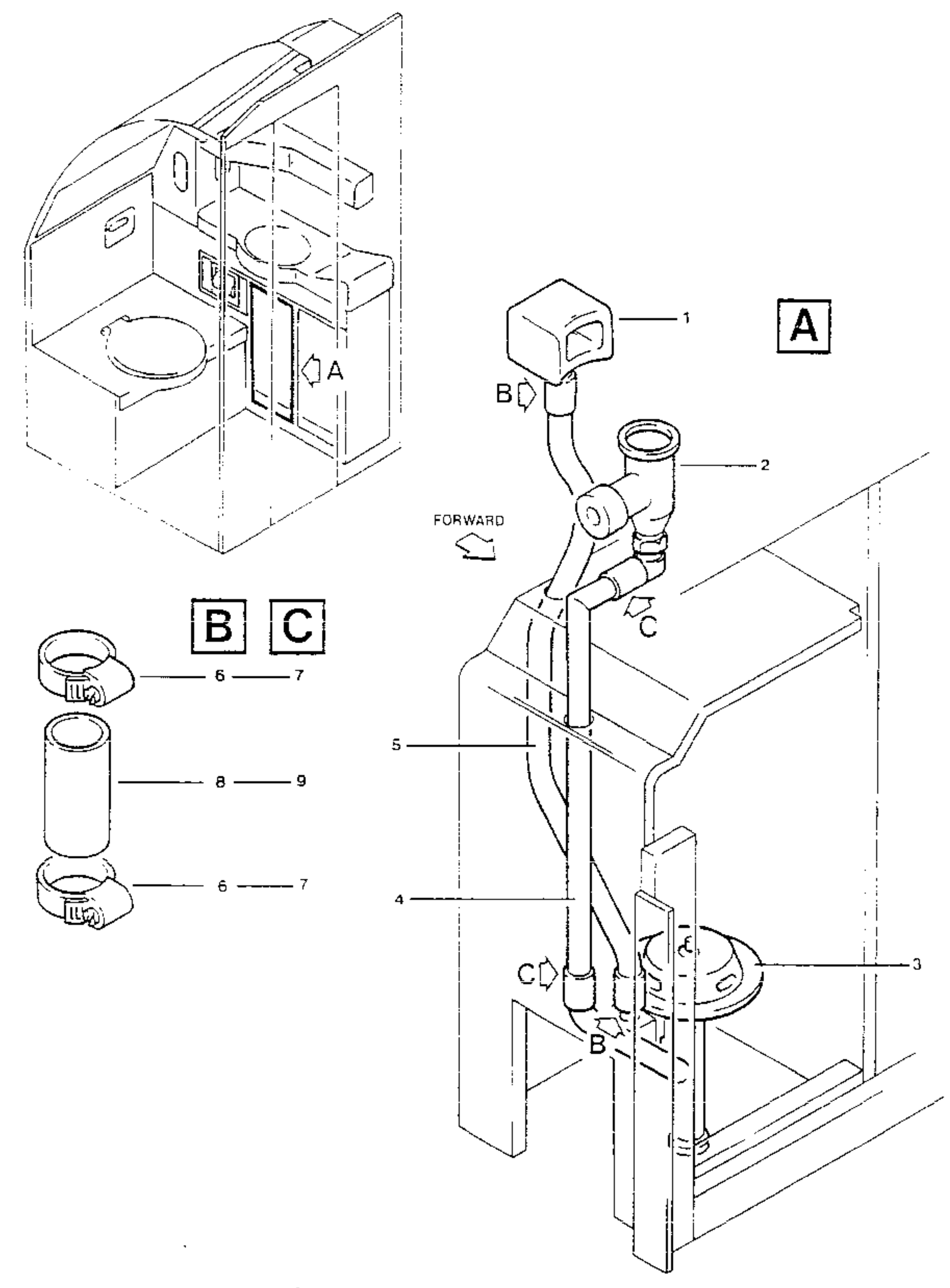
(4) Unscrew and remove union (12).

(5) Slacken union (6) on line drain valve (5) and union (14) on tee piece (15).

(6) Slide pipe assembly (4) out through aperture in vanity unit.

(7) Unscrew union nut on floor of toilet compartment and remove line drain valve (5).

(8) Cover floor stub pipe with protective plastic cap.



Sink Waste Water Pipes
Figure 406

(9) Unscrew union (16) and union (24), slide pipe assembly (9) out of water heater compartment.

(10) Unscrew unions on hot water supply pipe (2) and remove.

(11) Unscrew unions on water supply pipe (1) from solenoid to faucet and remove.

(12) Unscrew locking nuts (21) on 45° elbows (23) fully to remove washers (22) and 0 ring (20) from top of water heater (3) and solenoid valve.

(13) Unscrew locking nut (18) on base of water heater (3) and remove tee piece (15), washer (17) and 0 ring (19).

(14) Remove water heater (3) (Ref. 38-12-11).

(15) Cover inlet ports on solenoid valve with plastic protective caps.

J. Remove Water Supply Pipes (Ref. Fig. 408)

(1) Open access flap on gangway bulkhead and remove circlip (6) and remove control lever (7). Store in a safe place and re-install after removal of main toilet unit.

(2) Remove bolts (12) and washers (13) remove clamp block (11) from mounting bracket.

(3) Remove screws (4) and washers (3) from speaker bracket (5) and allow to hang freely on cable loom.

(4) Disconnect water supply pipe (8) from supply pipe (2).

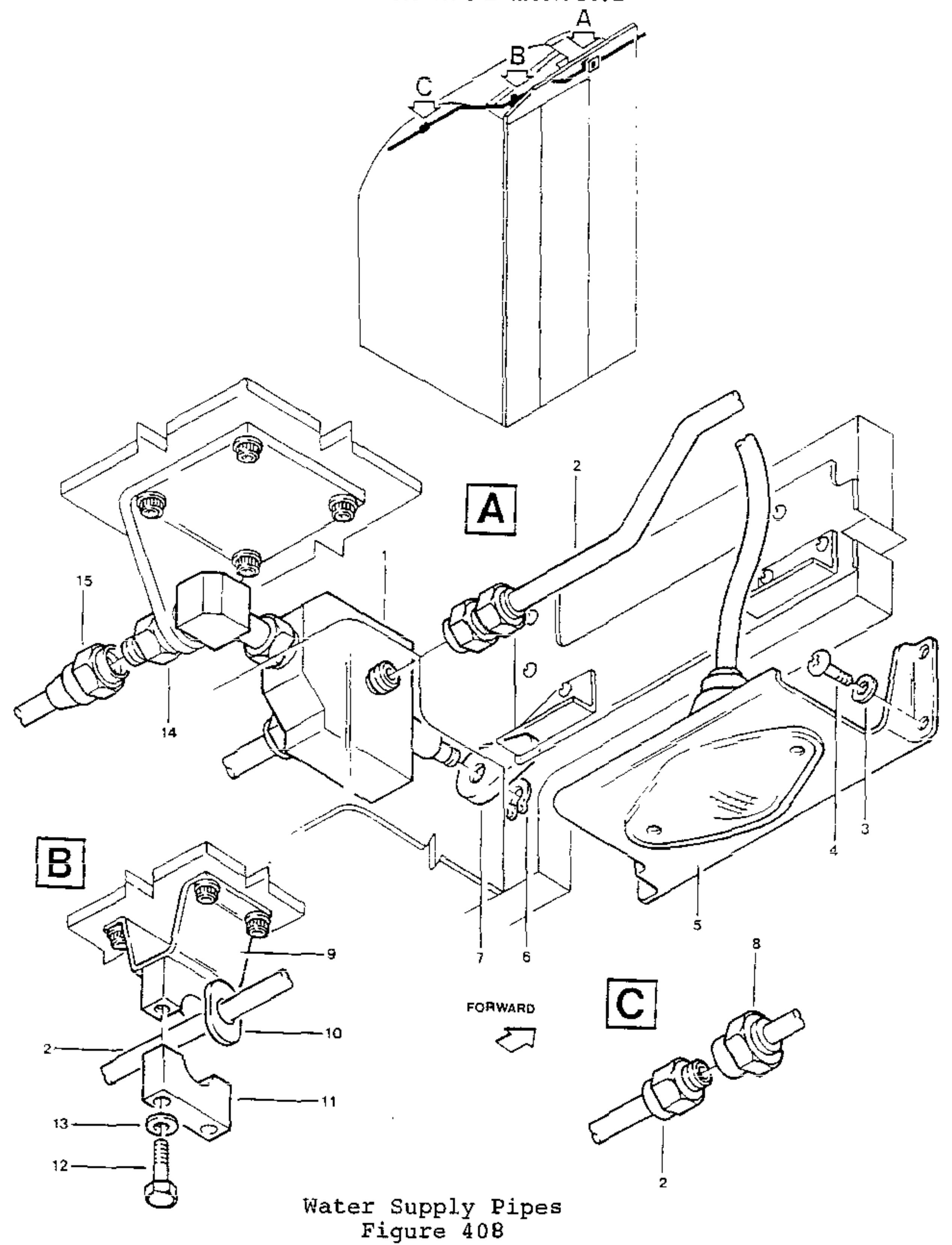
(5) Disconnect union from isolation valve (1) and slide supply pipe (2) through aperture in left hand bulkhead.

(6) Disconnect supply pipe (15) from elbow (14) on ceiling of aircraft.

(7) Secure speaker bracket (5) with screw (4) and washer (3) to lintel.

CM 25 41 13 011 S018

Water Supply in Vanity Unit
Figure 407



Water Supply Pipes
Figure 408

K. Remove Fresh Air Supply Pipe (Ref. Fig. 409)

WARNING: OXYGEN SYSTEM; MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND SURROUNDINGS CLEAN AND FREE FROM CONTAMINATION.

OBSERVE THE OXYGEN SAFETY PRECAUTIONS DETAILED IN 35-00-00, SERVICING.

(1) Release screws (9) and washers (10) and remove smoke detector cover (11). Store in a safe place.

(2) Release screws (13) and remove smoke detector (12) from dispenser assembly (14). Store in a safe place.

(3) Remove air freshener holder (7) at base of cosmetic rack (6).

(4) Release screws (8) and remove cosmetic rack cover (6).

(5) Release shoot bolt (15) and open cosmetic rack door (16).

(6) Slacken clip (18) and gently slide oxygen supply pipe (2) free of gasper (17).

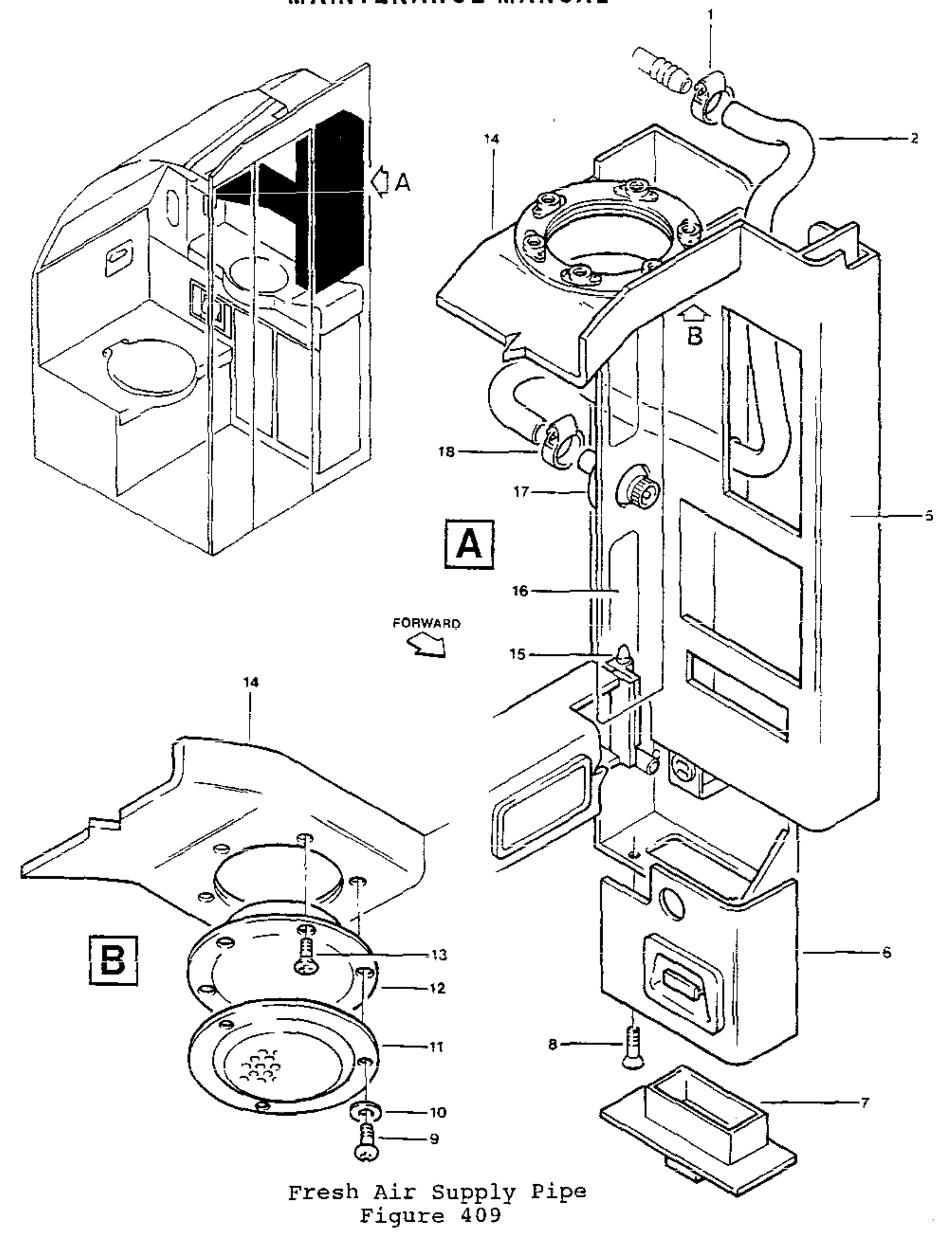
(7) Slacken clip (1) and gently slide supply pipe (20 free from aircraft supply in ceiling.

(8) Feed supply pipe (2) through apertures in cosmetic rack and remove from compartment.

(9) Close and lock cosmetic rack door (16).

(10) Replace cosmetic rack cover (6) with screws (8).

(11) Slide air freshener (7) back into position on cosmetic rack (5).



Fresh Air Supply Pipe
Figure 409

L. Remove Electrical Services

(1) Disconnect electrical receptacle from solenoid valve in water compartment.

(2) Disconnect main cable loom receptacle on fore and aft bulkhead lintel, from aircraft cable loom.

M. Remove Securing Spigots (Ref. Fig. 410)

(1) Remove bolts (6) and washers (5) from spigots (3).

(2) Remove spigot (3) from location on LH bulkhead (13) and slide free of spigot housing (2).

(3) Remove bolts (10) and washer (9) from spigot (11) on the main toilet unit (1).

(4) Release spigot (11) and packer (8) from spigot housing (12) and remove.

N. Remove LH Bulkead/Main Toilet Unit (Ref. Fig. 411)

(1) Remove bolt (25) and washer (24) in aperture (23) on fore and aft bulkhead (8). Access is obtained from inside vanity unit.

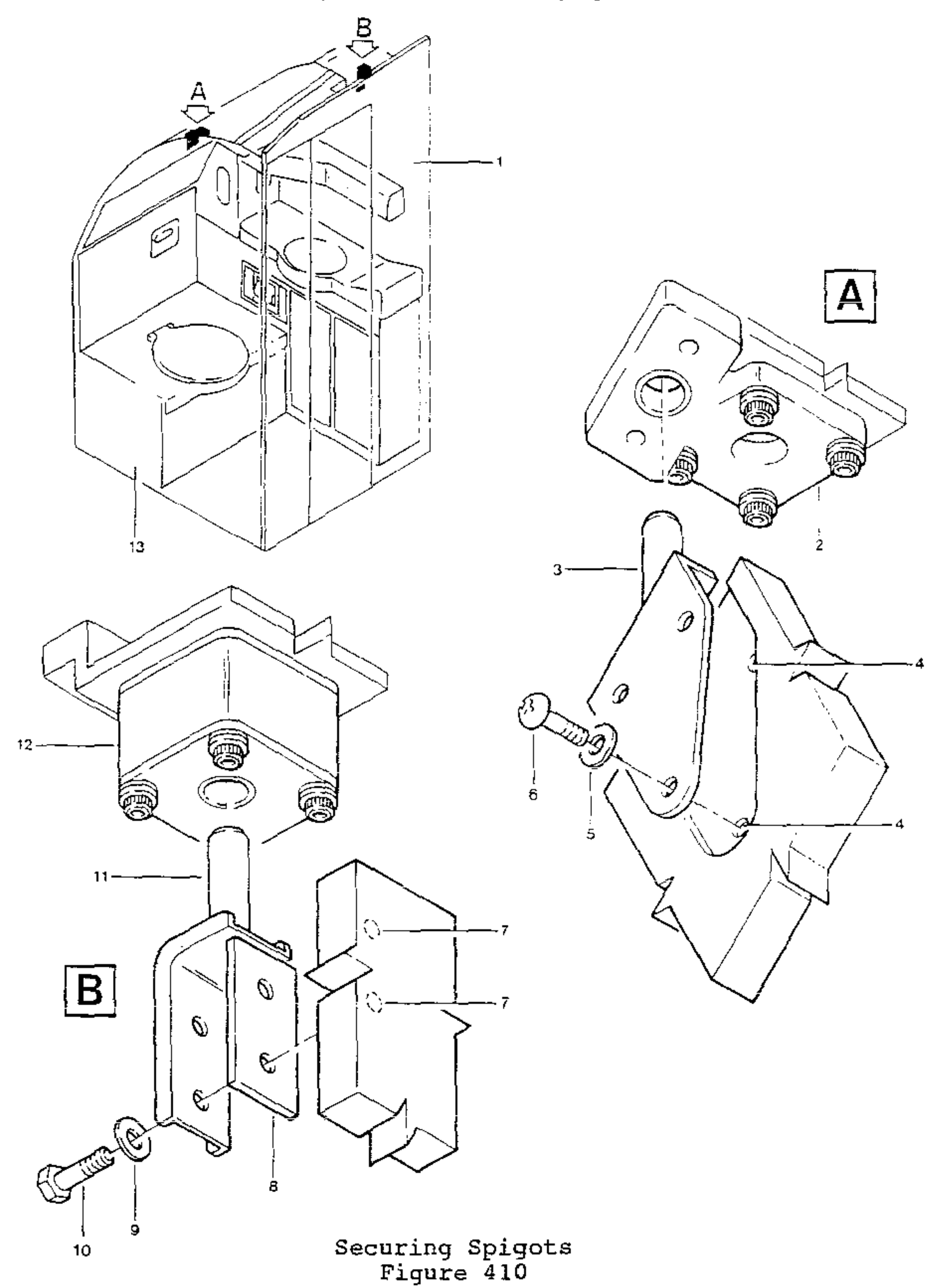
(2) Remove screw (22) and washer (21) from bracket (20) on LH bulkhead.

(3) Remove bolt (19) and washer (18) from angle (17) on gangway bulkhead.

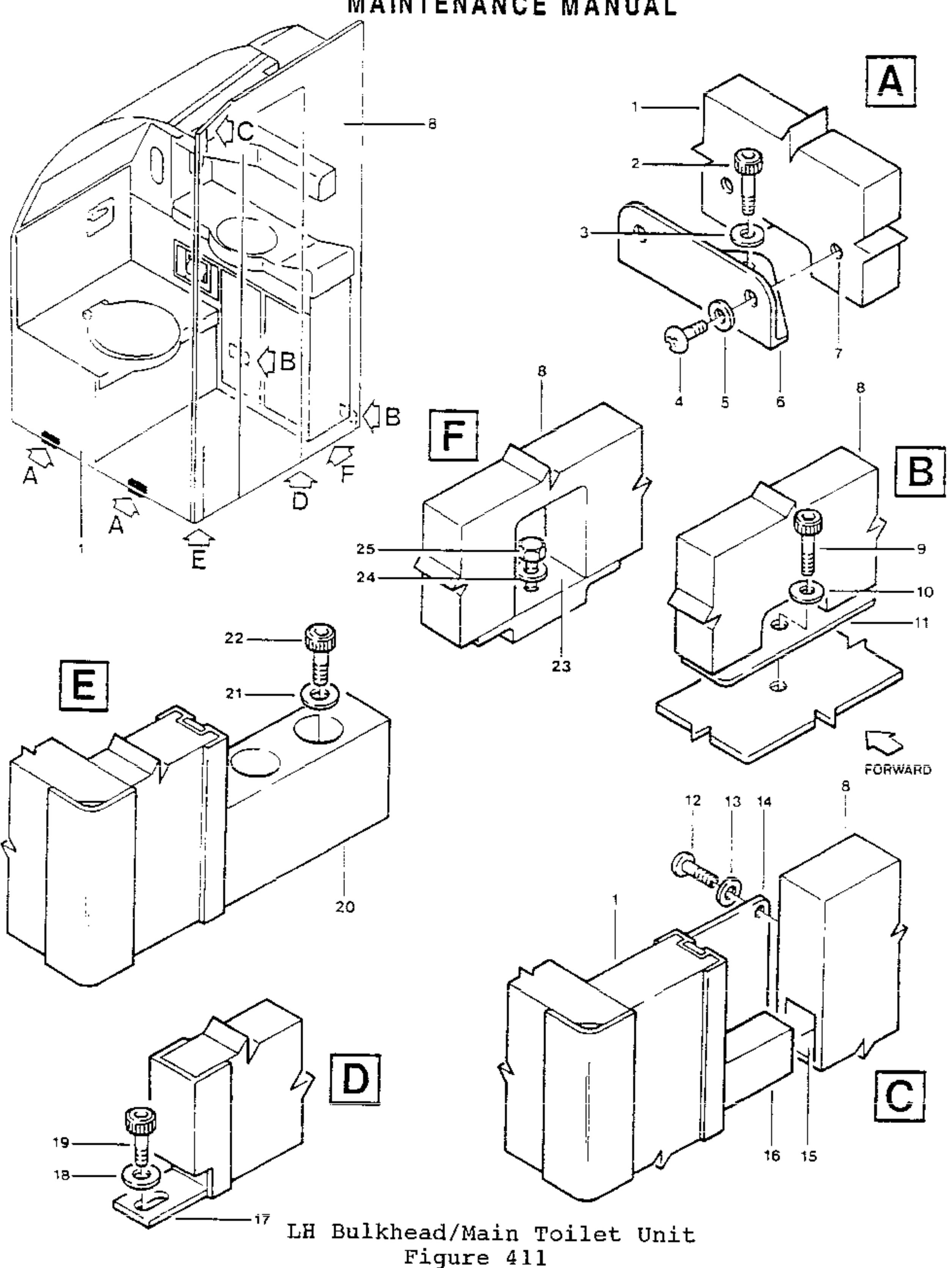
(4) Remove bolts (9) and washers (10) from foot fitting (11) on toilet unit (8).

(5) Remove bolts (2) and washers (3) from foot fittings (6) on LH bulkhead (1).

(6) Remove screws (4) and washers (5) from foot fittings (6), slide foot fittings (6) free of LH bulkhead (1).



Securing Spigots
Figure 410



LH Bulkhead/Main Toilet Unit
Figure 411

(7) Support LH bulkhead (1) and remove screws (12) and washers (13) from bracket (14) on main toilet unit (8).

(8) Ease LH bulkhead (1) and main toilet unit (8) apart, with care, disconnect spigot (16) from aperture (15) on the lintel.

(9) Slide LH bulkhead (1) from location and remove.

(10) Slide main toilet unit (8), from location, lift clear of drip tray and remove.

P. Remove Spigot Housings (Ref. Fig. 412)

(1) Remove bolts (5) and washers (4) releasing block (3) and housing plates (2) from aircraft structure (1).

(2) Remove bolts (6) and washers (7) releasing spigot housing (8) from aircraft structure (1) at FR.15.

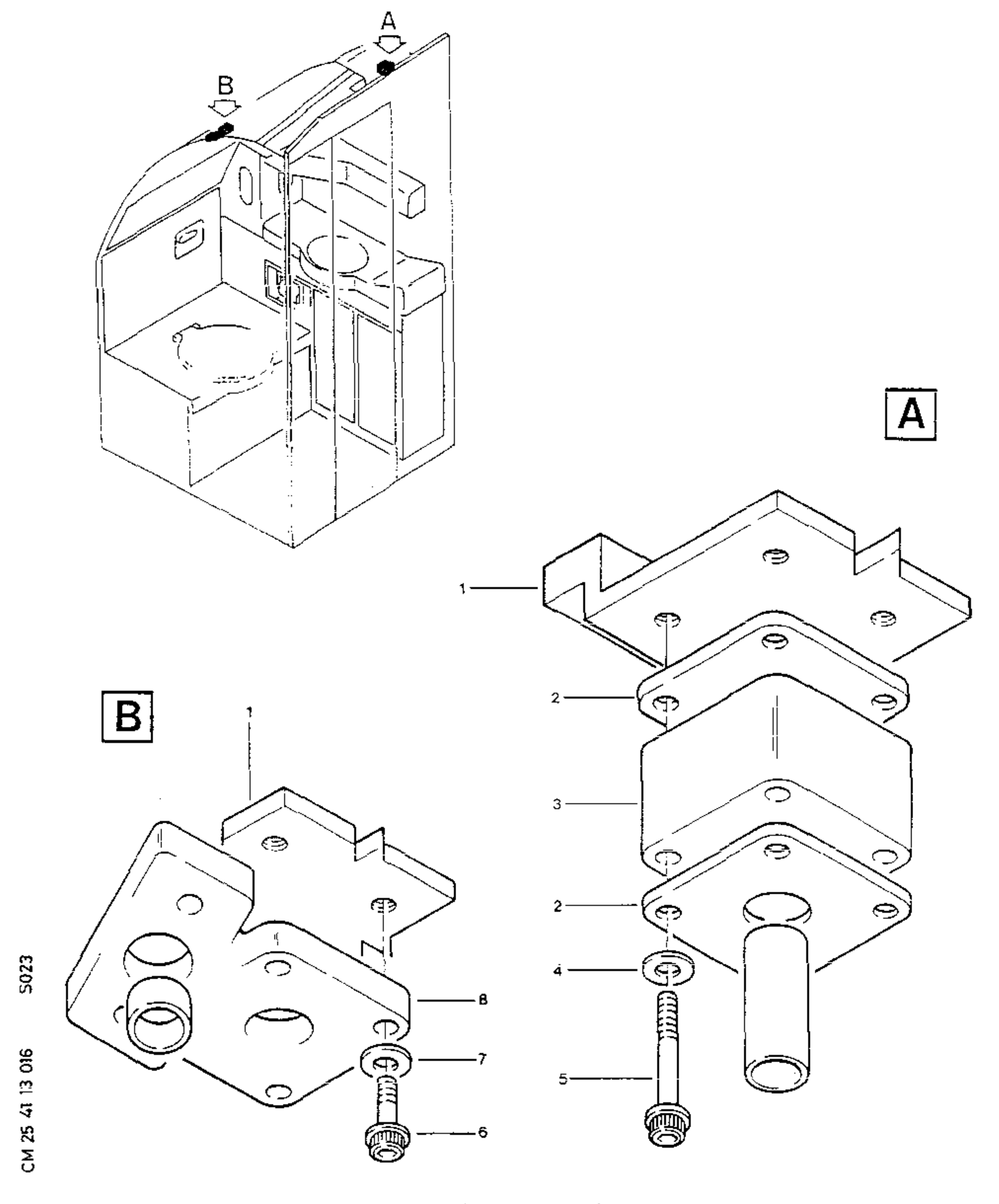
Q. Remove Tank Mounting Brackets (Ref. Fig. 413)

(1) Remove sealant from floor mounting bolts (1).

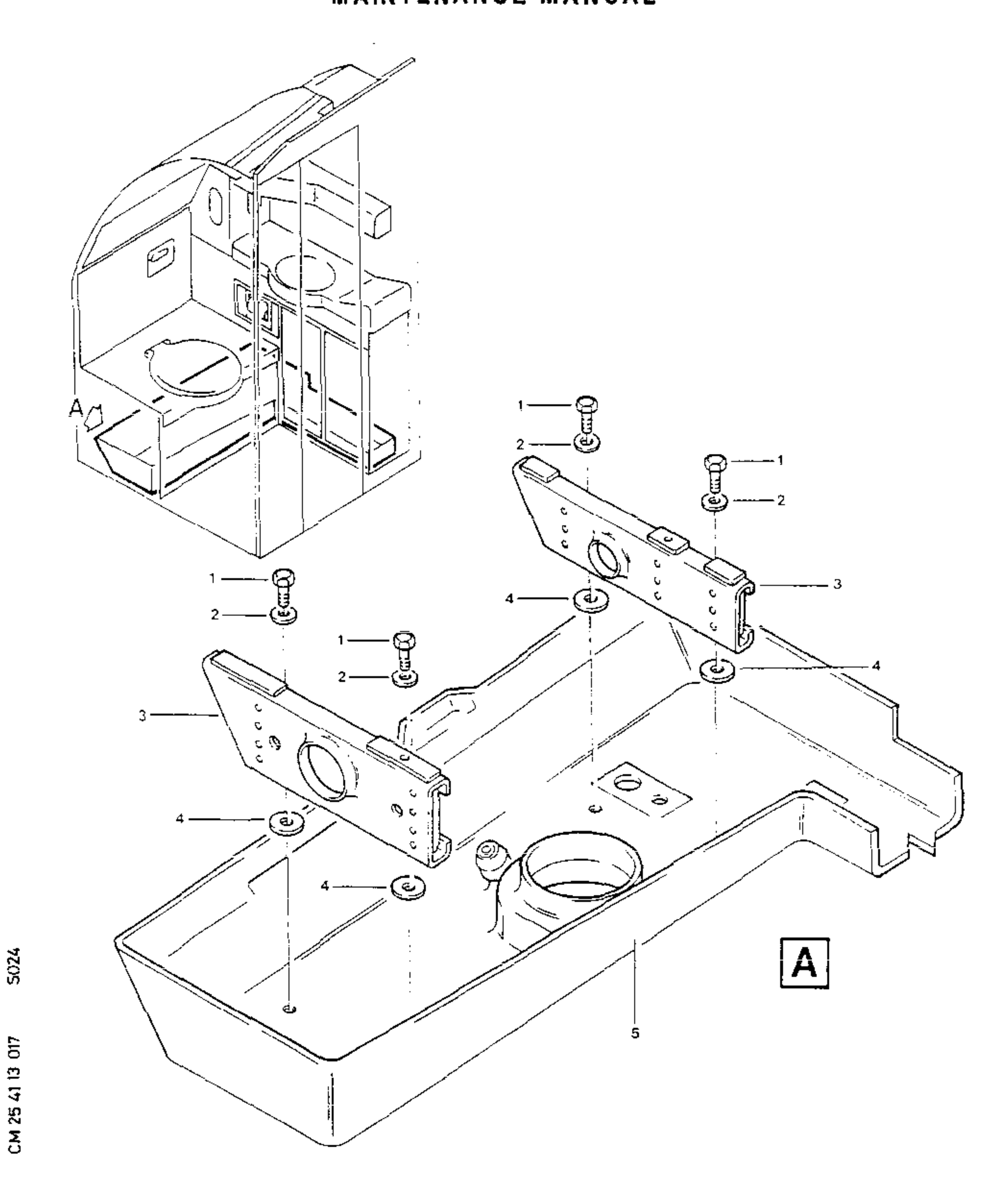
(2) Remove bolts (1) and washers (2) from mounting brackets (3).

(3) Remove mounting brackets (3) and rubber washer (4) from drip tray (5).

(4) Thoroughly clean sealant from mounting bolts and brackets with cleaning solvent BACM 302.



Spigot Housing
Figure 412



Tank Mounting Brackets
Figure 413

R. Remove Small Bore Connection on Floor (Ref. Fig. 414)

NOTE: To remove the drip tray, waste, water and air pipe floor connections must be removed. An assistant is required to hold the connection below the floor with a suitable spanner to prevent the assembly from turning when removing the retaining nut. Access below the floor is gained through access panel 123 BB.

(1) Remove the tank drain control cable (16) and conduit (Ref. 38-31-15).

(a) Remove the sealant, the sleeve seal (17) and the grommet seal (18) around the tank drain control cable conduit (16) at the inlet on the drip tray (19).

(b) Slide out and remove tank drain control cable and conduit.

(2) Remove lintel drain floor connections.

(a) Below the floor restrain floor connection (33) from turning, unscrew and remove pipe (27) and coupling nut (28).

(b) Still retaining floor connection (33), unlock and remove retaining nut (29), washer (30) and sealing ring (31).

(c) Withdraw the floor connection (33) and washer (32) from below the floor.

(d) Fit blanks in appropriate hole.

(3) Remove sink waste floor connection.

(a) Remove electrical bonding clips in accordance with 20-27-11.

(b) Below the floor restrain floor connection (20) from turning, unscrew and remove waste pipe (26) and coupling nut (25) above the floor.

(c) Unlock and remove retaining nut (24), washer (23) and sealing ring (22).

(d) Withdraw the floor connection (20) and washer (21) from below the floor.

(e) Fit blanks in appropriate hole.

(4) Remove air elbow floor connection.

(a) Unscrew coupling nut (8) and remove air pipe (7) from floor connection (13).

(b) Below the floor restrain elbow connection (13) from turning, unlock and remove retaining nut (9), washer (10) and sealing ring (11) from elbow connection (13) above the floor.

(c) Withdraw the elbow connection (13) and washer (12) from below floor.

(d) Fit blanks in appropriate hole.

(5) Remove sluice and charge floor connection.

(a) Remove electrical bonding clips from pipe below the floor in accordance with 20-27-11.

(b) Slacken worm drive clips (1) slide charge pipe (6) and joint sleeve (2) clear of floor connection (14).

(c) Below the floor restrain connection (14) from turning, unlock and remove retaining nut (3), washer (4) and sealing ring (5) from connection (14) above the floor.

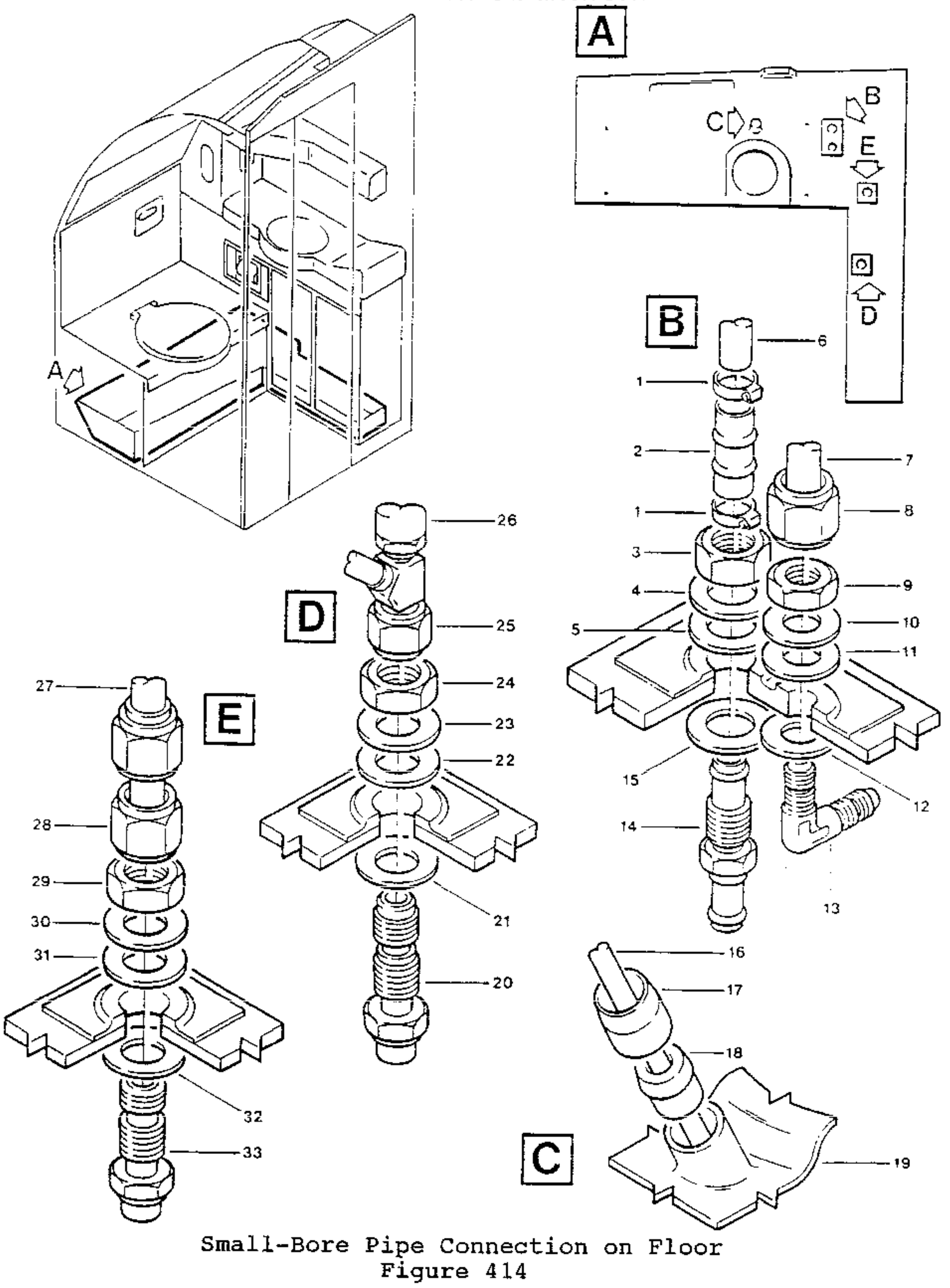
(d) Withdraw the connection (14) and washer (15) from below floor.

(e) Fit blanks in appropriate hole.

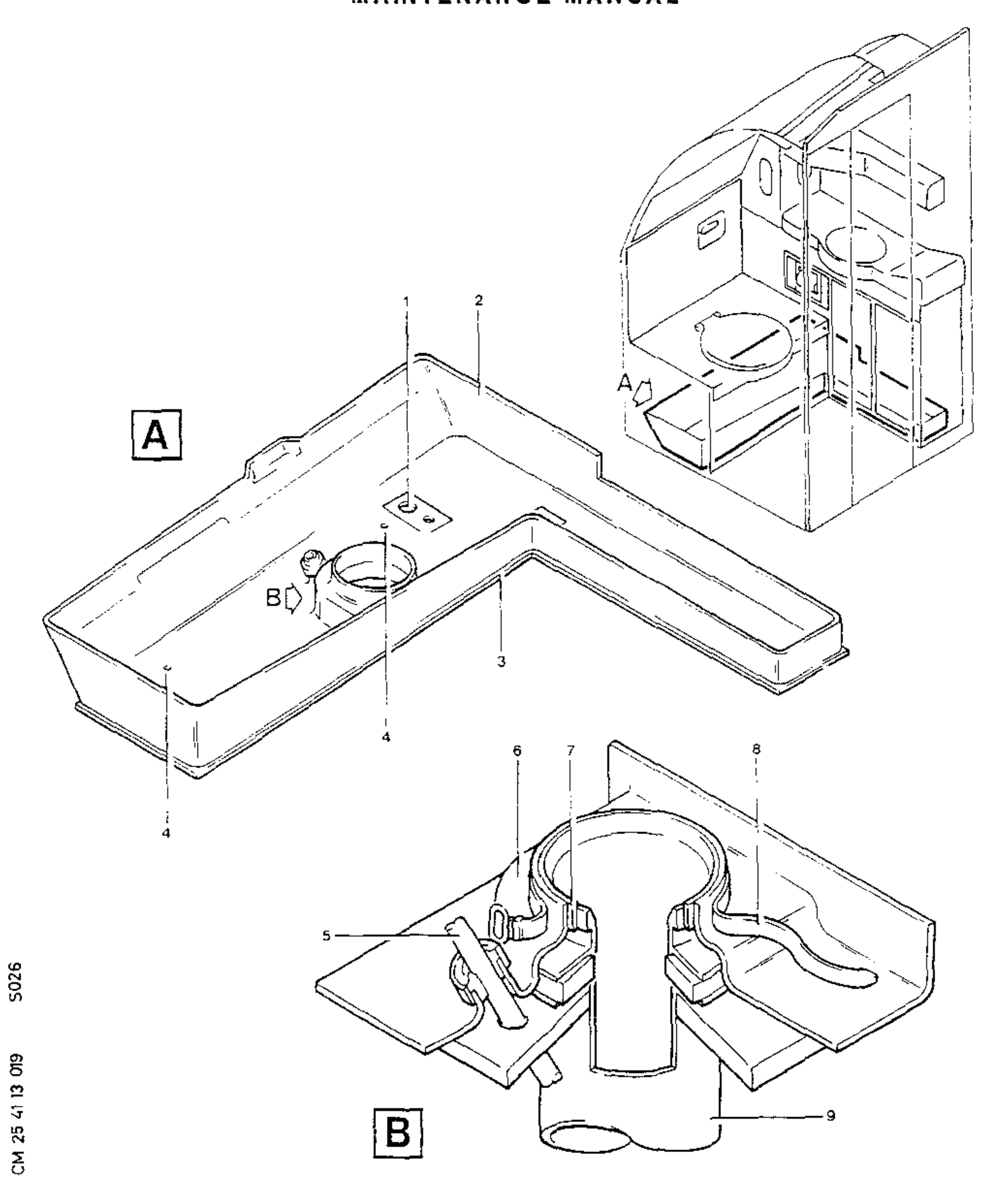
S. Remove Outboard Drip Tray (Ref. Fig. 415)

(1) Remove the tie-wrap (8) securing the drip tray flange (6) to the toilet tank drain pipe (9). Carefully sever the seal made by the bead of sealant (7).

(2) Strip the bead of sealant (3) from around the edge of drip tray (2), ease away drip tray (2) from the floor and tank drain pipe (9) and teleflex control cable (5).



Small-Bore Pipe Connection on Floor
Figure 414



Outboard Drip Tray
Figure 415

(3) Thoroughly clean old sealant from all surfaces with cleaning solvent, BACM 302.

4. Installation of Toilet Compartment, No.1

A. Installation of Outboard Drip Tray (Ref. Fig. 415)

CAUTION: THE HIGHEST STANDARD OF DRIP TRAY SEALING MUST BE MAINTAINED TO MINIMIZE THE RISK OF POSSIBLE DAMAGE TO THE UNDERFLOOR EQUIPMENT AND STRUCTURE IN THE EVENT OF FLUID SPILLAGE WITHIN THE TOILET UNIT.

Note: Remove water system contol lever (Ref. Removal/ Installation of Water Supply Pipes, Figure 408) before proceeding with toilet compartment installation.

(1) Fit the drip tray (2) over the toilet drain pipe (9) and the teleflex control cable (5). Align the holes (7) for the pipe stub and the tank mounting bracket bolts (4). Press firmly over the drip tray surface.

(2) Seal around edge of drip tray (2) with a bead of sealant RTV 102 (3).

(3) Seal the drip tray (2) to the toilet tank drain pipe (9) by applying a bead of sealant (7) RTV 102 at the lip between the drip tray flange (6) and the drain pipe (9). Secure the drip tray flange (6) to the pipe (9) with a tie-wrap (8).

B. Install Small-Bore Pipe Connections On floor (Ref. Fig. 414)

NOTE: An assistant is required to hold the connections below the floor, with a suitable spanner, to prevent the assembly from turing when the retaining nut is tightened. Access to the area below the floor is gained through access panel 123 BB on the underside of the fuselage.

Assemble pipes and couplings in accordance with 20-23-11 and 20-23-12.

Apply a bead of sealant RTV 102 around retaining nuts and drip tray on all pipe connections after torque tightening.

(1) Install the sluice and charge floor connection.

(a) Remove the blanks, fit a new washer (15) to the floor connection (14) and insert the connection through the appropriate hole in the floor, from below.

(b) Fit a new sealing ring (5), washer (4) and retaining nut (3) to the connection (14) above the floor. Do not tighten the nut.

(c) Remove the blank and align the connection (14) and the sluice and charge pipe (6) below the floor. Slide the joint sleeve (2) equipped with two worm drive clips (1) over the pipe joint; secure the joint sleeve with the worm drive clips (1).

(d) Fit an electrical bonding clip to the pipe at each side of the joint sleeve and connect the clips with a bonding lead in accordance with 20-27-11.

(e) Hold the connection assembly below the floor with a spanner. Torque-tighten the connection retaining nut (3) above the floor to between 645 and 655 lbf in (7.29 to 7.4 mdaN).

(2) Install the air elbow floor connection.

(a) Remove the blanks, fit a washer (12) to the elbow union (13) and insert it through the appropriate hole in the floor from below.

(b) Fit a new sealing ring (11), washer (10) and retaining nut (9) to the elbow union (13) above the floor. Do not tighten the nut.

(c) Remove the blank and align the elbow union (13) and the air pipe (7) below the floor and connect them with the coupling nut (8). Torque-tighten the retaining nut (9) above the floor to between 60-80 lbf in (0.68 and 0.90 mdaN).

(d) Hold the elbow connection (13) below the floor with a spanner. Torque-tighten the retaining nut (9) above the floor to between 107 and 117 lbf in (1.21 to 1.32 mdaN).

(3) Install the sink waste floor connection.

(a) Remove the blanks, fit a washer (21) to the floor connection (20) and insert it through the appropriate hole in the floor from below.

(b) Fit a new sealing ring (22), washer (23) and retaining nut (24) to the connection above the floor. Do not tighten the nut.

(c) Remove the blank and align the connection (20) and the waste pipe (26) below the floor and connect them with the coupling nut (25). Torque-tighten the nut to between 300 and 500 lbf in (3.39 and 5.65 mdaN).

(d) Fit an electrical bonding clip to the pipe at each side of the joint sleeve, and connect the clips with an electrical bonding lead in accordance with 20-27-11.

(e) Hold the connection assembly below the floor with a spanner. Torque-tighten the elbow retaining nut (24) above the floor to between 645 and 655 lbf in (7.29 to 7.4 mdaN).

(4) Install the line drain floor connection.

(a) Remove the blanks, fit a washer (32) to the line drain floor connection (33) and insert it through the appropriate hole in the floor from below.

(b) Fit a new sealing ring (31), washer (30) and retaining nut (29) to the connection above the floor. Hold the connection below the floor with a spanner and torque-tighten the retaining nut (29) above the floor to between 307 to 317 lbf in (3.47 to 3.58 mdaN).

(c) Remove the blank from the line drain pipe below floor, align the pipe (27) with the connection and screw on the coupling nut (28). Torque-tighten the nut to between 75 and 125 lbf in (0.85 to 1.41 mdaN).

(5) Install the tank drain control cable (16) and conduit (Ref. 38-31-15, Removal/Installation). Seal the control cable conduit to the drip tray.

(a) Fit the new grommet seal (18) around the conduit and inside the drip tray flange (19).

(b) Fit the sleeve seal (17) over the grommet seal (18) and drip tray flange (19).

(c) Apply a bead of sealant RTV 102 to seal the sleeve (17), grommet seal (18) and conduit.

C. Install Tank Mounting Brackets (Ref. Fig. 413)

(1) Position the tank mounting brackets (3) with new rubber washers (4) interposed between the brackets (3) and drip tray (5).

(2) Secure the mounting brackets (3) to the floor with washers (2) and bolts (1). Torque-tighten each bolt (1) to between 35 and 44 lbf in (0.40 and 0.50 mdaN).

(3) Encapsulate all floor mounting bolts (1) with sealant RTV 102.

D. Install Spigot Housings (Ref. Fig. 412)

(1) Secure spigot housing (8) to aircraft structure (1) at FR.15 with bolts (6) and washers (7).

(2) Secure spigot housing plates (2) and block (3) to aircraft structure (1) with bolts (5) and washers (4).

E. Install LH Bulkhead/Main Toilet Unit (Ref. Fig. 411)

(1) Remove screws (4) and washers (5) from foot fittings (6) on LH bulkhead (1) only.

(2) Install foot fittings (6) on aircraft floor with bolts (2) and washers (3).

(3) Position LH bulkhead (1) on aircraft and align bulkhead attachment points (7) with foot fittings (6).

(4) Position main toilet unit (8) on aircraft.

(5) Mate spigot (16) on LH bulkhead (1) with aperture (15) on main toilet unit (8).

(6) Install screws (12) and washers (13) through bracket (14) to secure LH bulkhead (1) to main toilet unit (8).

(7) Install screws (4) and washers (5) to LH bulkhead (1) through foot fitting (6).

(8) Install foot fittings (11) on aircraft floor with bolts (9) and washers (10) in positions on main toilet unit (8).

(9) Install bolt (19) and washer (18) through angle (17).

(10) Install screw (22) and washer (21) through bracket (20) to floor structure.

(11) Install bolt (25) and washer (24) in aperture (23) to secure fore and aft bulkhead (8) to floor structure.

F. Securing Spigots (Ref. Fig. 410)

(1) Install spigot (11) into spigot housing (12) and align spigot (11) with attachment points (7) on Main Toilet Unit (1).

(2) Install bolts (10) and washers (9) through spigot (11) and packer (8) to Main Toilet Unit (1).

(3) Install spigot (3) into spigot housing (2) and align spigot (3) with attachment points (4) on LH bulkhead (13).

(4) Install bolts (6) and washers (5) through spigot (3) to LH bulkhead (13).

G. Fresh Air Supply Pipe (Ref. Fig. 409)

WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND SURROUNDINGS CLEAN AND FREE FROM CONTAMINATION.

OBSERVE THE OXYGEN SAFETY PRECAUTIONS DETAILED IN 35-00-00, SERVICING.

OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

(1) Release screws (9) and washers (10) and remove smoke detector cover (11).

(2) Release screws (13) and remove smoke detector (12) from dispenser assembly (14).

(3) Remove air freshener holder (7) at base of cosmetic rack cover (6).

(4) Release screws (8) and remove cosmetic rack cover (6).

(5) Release shoot bolt (15) and open cosmetic rack door (16).

NOTE: Ensure sufficient play in supply pipe to allow unrestricted flow.

(6) Attach supply pipe (2) to main supply with clip (1).

(7) Feed supply pipe (2) through cosmetic rack (5).

(8) Trim supply pipe (2) to required length and attach to gasper (17) with clip (18).

(9) Close and lock cosmetic rack door (16).

(10) Replace cosmetic rack cover (6) with screws (8).

(11) Replace air freshener holer (7) on cosmetic rack (5).

(12) Support smoke detector (12) in dispenser assy (14) secure with screws (13).

(13) Support smoke detector cover (11) secure with screws (9) and washers (10).

H. Water Supply Pipes (Ref. Fig. 408)

(1) Remove screws (4) and washers (3) and release speaker bracket (5) to hang freely from A/C.

(2) Connect supply pipe (15) from toilet unit, to elbow (14).

(3) Slide water supply pipe (2) through aperture in left hand bulkhead.

(4) Connect water supply pipe (2) to main water supply pipe (8) and isolation valve (1).

(5) Install new grommet (10) around water supply pipe (2).

(6) Install clamp block (11) to mounting bracket (9) with bolts (12) and washers (13).

(7) Install control lever (70 in aperture, on to isolation valve (1) with new circlip (6).

(8) Position and secure speaker bracket (5) with screws (4) and washers (3).

J. Install water Supply in Vanity Unit (Ref. Fig. 407)

CAUTION: TIGHTEN ALL PIPE UNIONS SUFFICIENTLY TO PREVENT ANY LEAKAGE.

(1) Install water heater (3) (Ref. 38-12-11).

(2) Install a 45° elbow (23), a washer (22) and 0 ring (20) to inlet parts of solenoid valve and outlet on top of water heater (3). Do not fully tighten locking nuts (21), so allowing the elbows (23) to swivel for pipe union (240 alignment.

(3) Remove plastic caps. Connect water supply pipe assembly (1) to elbow (23) on top of solenoid, tighten union (24) and locking nut (21) sufficiently on elbow.

(4) Connect upper union to inlet port on faucet.

(5) Position hot water supply pipe assembly (2), couple unions (24) to elbows (23) hold in required position and tighten locking nuts (21).

(6) Tighten unions (24) sufficiently to elbows (23).

NOTE: Only install new 0 rings and grommets.

(7) Install tee union (15), washer (17) and 0 ring (19) to base of water heater (3). Do not fully tighten locking nut (18), so allowing tee-union (15) to swivel for pipe union alignment.

(8) Position pipe assembly (9) couple pipe unions (16) and (24), hold in required position and tighten locking nuts (18) and (21) on elbow (23) and Tee piece (15).

(9) Tighten pipe unions (16) and (24) sufficiently.

(10) Install the line drain valve (5).

(a) Position the valve (5) on the floor connection and secure the valve with the union nut. Torque-tighten the nut to between 40 and 65 lbf in (0.45 and 0.73 mdaN).

(11) Position pipe assembly (4), coupling union (14) and (6) to tee piece (15) and outlet on line drain valve.

(12) Tighten pipe union (14) and (6) sufficiently.

(13) Install union (13) into end fitting (12) on pipe assembly (8).

(14) Position and couple pipe assembly (8) to union (12) and line drain valve.

(15) Tighen end fittings (12) and (7) sufficiently

(16) Install pan head screw (11) through P clip (10) to secure pipe assembly (8) to toilet wall.

(17) Install new grommet around elbow on top of water heater to seal aperture.

K. Install Sink Waste Water Pipes (Ref. Fig. 406)

CAUTION: TIGHTEN ALL WORM DRIVE CLIPS ON JOINT SLEEVE SUFFICIENTLY TO PREVENT ANY LEAKAGE.

(1) Install water overflow valve (3) (Ref. 38-31-18).

(2) Fit a joint sleeve (8) and two worm drive clips (6) on each end of waste pipe (5).

(3) Position the waste pipe (5), align the top and bottom ends of pipe assembly.

(4) Slide the sleeves over sink overflow connection (1) and water overflow valve connection (3), secure pipe ends with worm drive clips (6).

(5) Fit a joint sleeve (9) and two worm clips (7) on each end of waste pipe (4).

(6) Position the sink waste pipe (4), align the top and bottom ends of pipe.

(7) Slide sleeves over sink waste connection (2) and overflow valve part (3), secure pipe ends with worm drive clips.

L. Install Pneumatic Flush Lines (Ref. Fig. 405)

CAUTION: TIGHTEN ALL UNIONS SUFFICIENTLY TO PREVENT ANY LEAKAGE.

(1) Install the toilet air flush valve (1) (Ref. 38-41-15).

(2) Install corner fitting (2) into air flush valve (1).

(3) Couple air supply pipe (3) to corner fitting (2) ensuring pipe bend runs outboard.

(4) Connect tee piece (8) with air supply pipe (3), ensure horizontal connection is positioned inboard parallel with fore and aft bulkhead.

(5) Couple lower air supply pipe (6) with tee piece (8) and floor connection.

(6) Couple side supply pipe assembly (4) to tee piece (8) and lower elbow (5).

(7) Connect lower elbow (5), to toilet tank air reservoir prior to installation of toilet tank along with toilet waste, pipes (Ref. Removal/Installation of Toilet Waste Pipes Figure 404).

M. Install Toilet Waste Pipes (Ref. Fig. 404)

CAUTION: TIGHTEN ALL WORM DRIVE CLIPS AND UNIONS SUFFICIENTLY TO PREVENT ANY LEAKAGE.

(1) Fit a joint sleeve (15) and two worm drive clips (14) to sluice pipe assembly (5).

(2) Slide joint sleeve (15) over stub piece (16) on air flush (1), secure with worm drive clips (14).

(3) Fit a joint sleeve (8) on supply pipe (13) on stub pipe (6) in floor and two worm drive clips (7).

(4) Slide pipe assembly (13) into joint sleeve (8).

(5) Install union (3) into corner fitting (2) on supply pipe (13).

(6) Install pipe assembly (4) onto union (3), ensuring vertical pipe aligns with stub pipe (11) on air flush valve (1).

NOTE: Ensure pipes are correctly aligned to prevent any unnecessary stress on joints and unions.

(7) Fit a joint sleeve (10) over stub pipe (11) and vertical water supply pipe (4) and two worm drive clips (9).

(8) Install toilet tank (12) (Ref. 38-31-11).

N. Install Electrical Services

(1) Connect cable loom on fore and aft bulkhead lintel to main aircraft cable loom.

(2) Connect electrical receptacle to solenoid in the water compartment.

R. Install Drip Tray - Standing Area (Ref. Fig. 403)

CAUTION: IT IS IMPORTANT THAT THE HIGHEST STANDARD OF DRIP TRAY SEALING IS MAINTAINED TO MINIMIZE THE RISK OF POSSIBLE DAMAGE TO UNDERFLOOR EQUIPMENT IN THE EVENT OF FLUID SPILLAGE WITHIN THE TOILET AREA.

(1) Slide aft facing edge of drip tray (2) under vanity unit (1), carefully press drip tray (6) downwards mating with floor structure.

(2) Join and seal the joint between the outboard drip tray (8) and standing area drip tray (6) with a strip of waterproofed fabric sealing tape (3).

(3) Apply a bead of sealant (5) RTV 102 under the edge of the drip tray (6) at the doorway. Continue the bead along the drip tray top flange at the doorposts and LH bulkhead.

(4) Remove screw (7) from angle on gangway bulkhead.

(5) Position the floor threshold (4), secure with countersunk screw (7).

Q. Install Compartment Doors (Ref. Fig. 402)

(1) Toilet Roll Holder

(a) Locate and slide hinge pins (2) of toilet roll holder (7) into hinge plates (3).

(b) Push toilet roll holder (7) backwards towards vanity unit (5), ensuring pinlatch (6) locks into bracket (4) located in the bottom right hand corner.

(2) Water Compartment Door

(a) Locate and slide hinge pins (14) of water compartment door (15) into hinge plates (13).

(b) Push door (15) back towards vanity unit (5).

(c) Locate bolt (16) in aperture on bracket (9).

(d) Hold door (15) in position slide latch keep (9), upwards from inside the vanity unit to lock door.

(3) Trash Bin Door

(a) Install trash bin in vanity unit.

(b) Locate base of trash bin door (11) over studs (12).

(c) Push door backwards towards the vanity unit (5) ensuring latch (10) locks into strike plate (8).

P. Install Shrouds (Ref. Fig. 401)

(1) Position front panel (4) on toilet tank, align dual lock strips and press firmly to secure.

(2) Locate top panel and toilet seat (5) on toilet tank and slide backwards into position.

(3) Position curved ceiling panel (1) aligning air aperture on lower edge. Press dual lock to secure panel in position.

(4) Position air vent panel (7) along lower edge of curved ceiling panel. Press dual lock to secure into position.

(5) Position outboard wall panel (6), connect flush mechanism to flush handle (3) (Ref. 38-41-15). Press dual lock to secure into position along upper and lower edges.

(6) Position upper ceiling panel (2). Press dual lock to secure panel.

S. Install Galleys.

(1) Install No. 2 galley forward of the toilet (Ref. 25-32-00, Removal/Installation).

(2) Install No. 3 Galley aft of the toilet (Ref. 25-33-00, Removal/Installation).

T. Conclusion

(1) Install toilet door (Ref. 52-51-21).

(2) Install toilet mirror (Ref. 25-41-12).

(3) Reset the circuit breakers previously tripped.

(4) Replenish the fresh water system in accordance with 38-11-00, Servicing.

(5) Test the toilet wash system (Ref. 38-12-00, Adjustment/Test).

(6) Charge the toilet with sanitary fluid (Ref. 12-16-38).

(7) Test the toilet tank (Ref. 38-31-11, Adjustment/Test).

(8) Test the toilet lighting (Ref. 33-22-00, Adjustment/Test).

(9) Test the toilet signs (Ref. 33-25-00, Adjustment/Test).

(10) Test the call system (Ref. 33-27-00, Adjustment/Test).

(11) Test the toilet oxygen system (Ref. 35-21-15, Adjustment/Test).

WC BENCH UNIT - REMOVAL/INSTALLATION

1. General

The WC bench unit is located on the outboard side of the toilet opposite the door. The bench, which conceals the WC tank and fittings, comprises a removable top and front panels, toilet seat and cover. The bench unit removal and installation procedure is similar for all toilet locations in the aircraft.

2. Bench Unit (Ref. Fig. 401)

A. Remove

(1) At the right-hand side, pull the top of the facing panel, fitted with a magnetic catch, away from the
R right-hand cabinet assembly. Lift the panel off the spigots and remove it.

(2) Remove the two domed screw caps from the special screws at the curved section of the front panel, and remove the two special screws which secure the top panel to the bottom front panel.

(3) Remove the bench top complete with toilet seat and cover using the following sequence:-

(a) Pull the top panel inboard to disengage the splashback from the backrest panels.

(b) Lift the end opposite the toilet cabinet and disengage the top panel from the joggled lip on the toilet cabinet framework. Lift the top panel away.

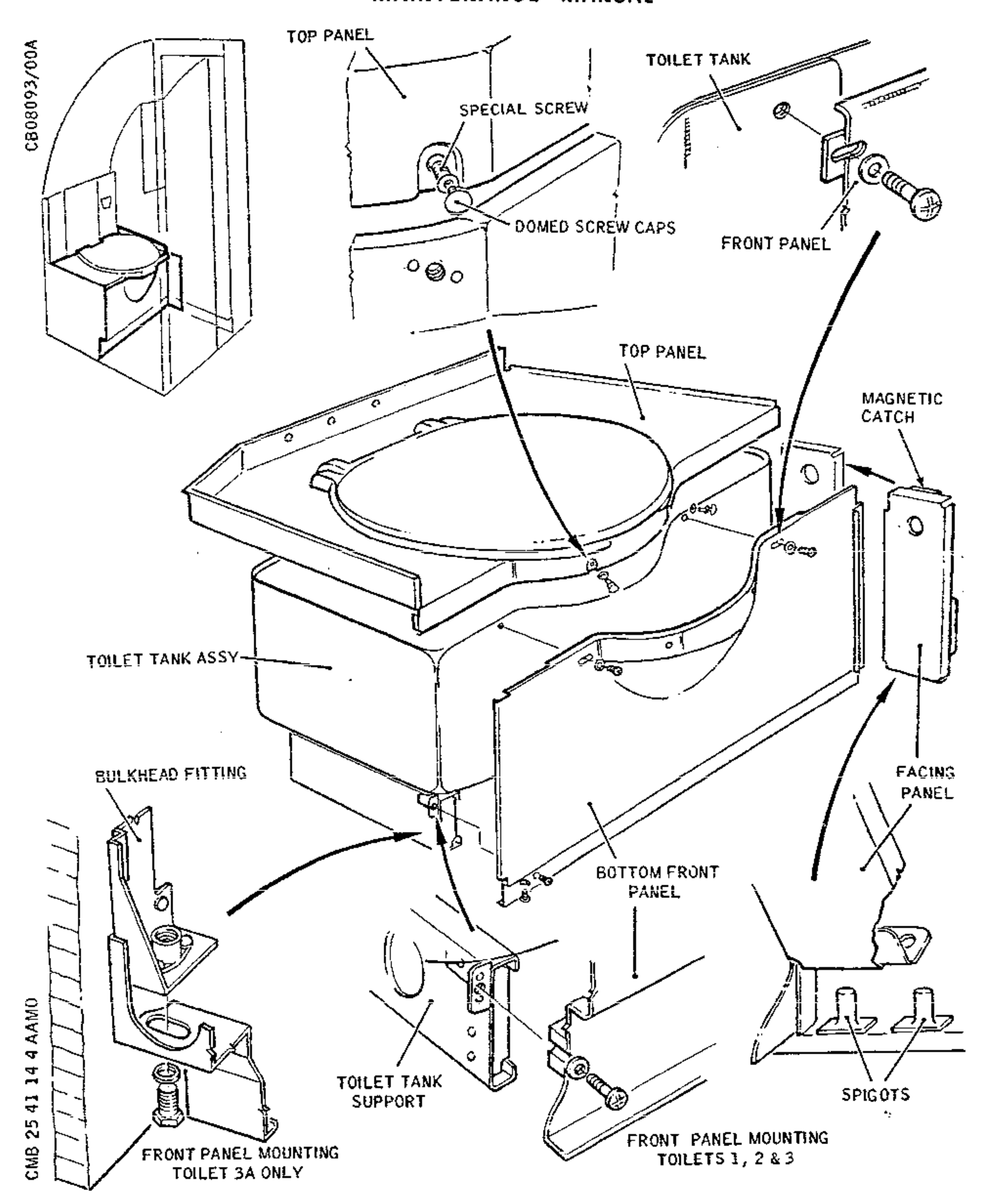
(4) Remove the two screws, and their washers, attaching the top edge of the bottom front panel to the toilet tank assembly.

(5) Remove the screw and its washer from the bottom left-hand side, which secures the bottom front panel to the toilet tank support. Remove the front panel.

NOTE: In toilet No.3A, the panel is secured in a similar manner to the bulkhead (Ref. Fig. 401)

B. Install

(1) Visually inspect the area, which is to be enclosed by the bench unit, for cleanliness.



WC Bench Unit - Installation
Figure 401

(2) Position the bottom front panel, secure it at the top edge to the toilet tank assembly with two washers and screws, and at the bottom left-hand side to the toilet tank support with a washer and screw.

NOTE: In toilet No.3A, the panel is secured in a similar manner to the bulkhead (Ref. Fig. 401)

(3) Refit the top panel in the following sequence:-

(a) Position the top panel complete with toilet seat and cover assembly. Raise the end opposite the toilet cabinet and engage the edge of the lower side under the joggled lip on the cabinet framework.

(b) Lower the top panel and push it outboard to engage the splashback under the backrest panels.

(c) Secure the top panel to the bottom front panel with two special screws; fit a domed screw cap to each of the screws.

(4) Fit the facing panel to the right-hand cabinet assembly. Place it over the two spigots and engage the magnetic catch at the top edge of the panel with the keeper plate on the cabinet assembly.

INBOARD CONSOLE - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The inboard console in the toilet, consisting of a hinged door, top box assembly and a front panel, extends from the toilet cabinet to the ceiling. The console unit door contains a controllable fresh air louvre which is connected to the air conditioning plenum chamber by a flexible hose. A vertically mounted fluorescent strip light is recessed into the console door nearest the mirror. Above it is a standby lamp which illuminates automatically in emergency. Ballast units, associated with the toilet fluorescent lighting, are mounted on trays fixed to the inboard partition. The door, which is hinges along the side abutting the mirror, is retained in the closed position by a spring operated mechanism. The handle for operating the mechanism to open the console door is located against the inboard partition, beneath the wash basin top.

2. Inboard Console (Ref. Fig. 401)

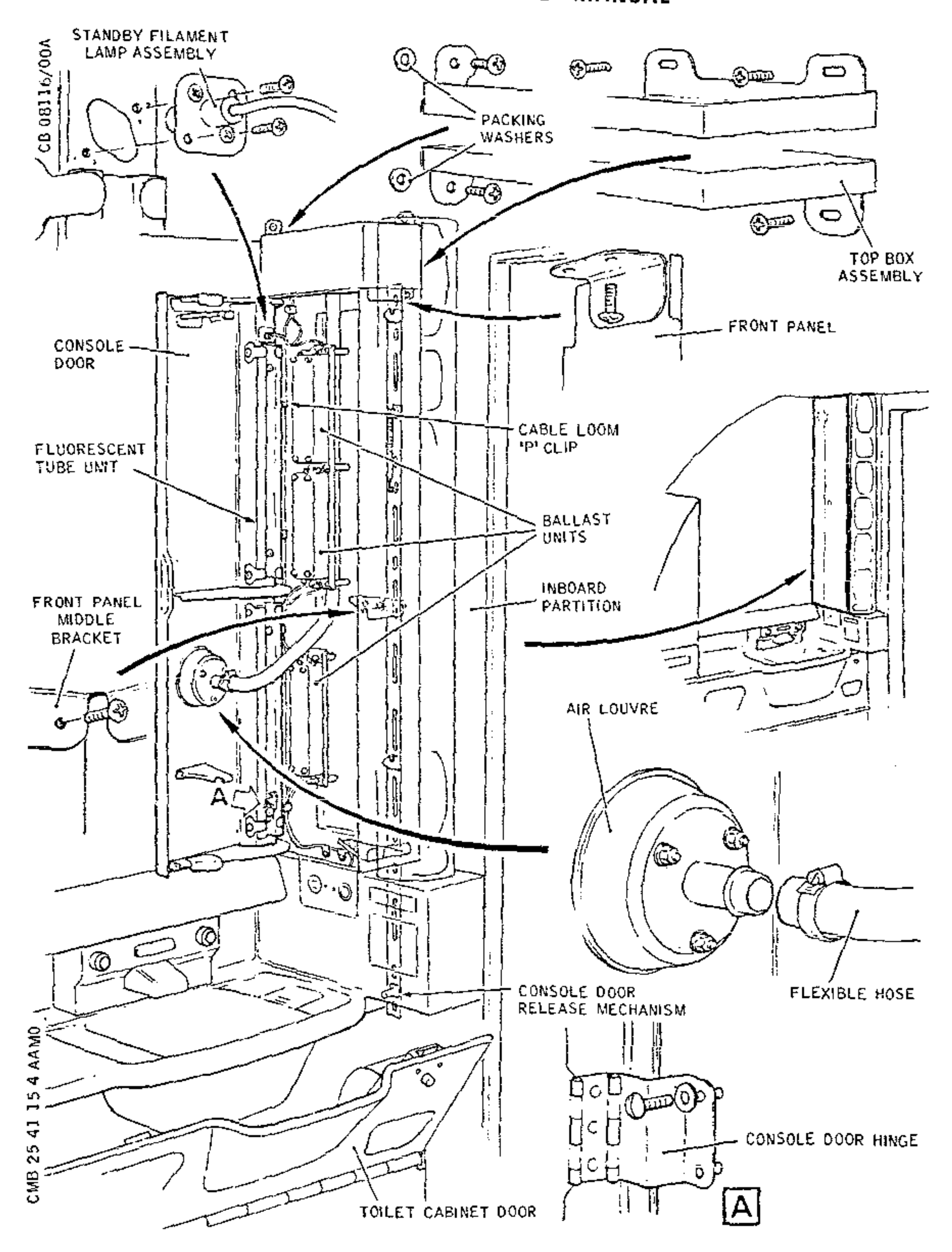
A. Equipment and Materials

DESCRIPTION	PART NO.
Flexible shaft screwdriver&	-
Circuit breaker safety clips	-

B. Prepare

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
TOILET MAIN LTS SUP	14-216	L985	C10
CABIN NIGHT LTS SUP	5-213	L455	D19



Inboard Console - Installation
Figure 401

(2) Lower the toilet cabinet door to gain access to the console door retaining mechanism. Press down on the nylon peg, located beneath the wash basin top against the inboard partition, to release the console door.

C. Remove

(1) Remove the ballast units in order to gain access to the electrical cable loom. (Ref.33-22-00, Removal/ Installation).

(2) Remove the P-clips from the bulkhead to free the cable loom. Trace the electrical cables from the fluorescent tube units to the in-line splices and cut the cable close to the splice. Identify the cables to assist installation.

(3) Remove the two screws securing the standby filament lamp assembly to the light fitting. Remove the standby filament lamp assembly and support the assembly.

(4) Loosen the worm drive clip clamping the flexible hose to the air louvre flange. Remove the hose from the louvre flange and fit blank covers to the hose and louvre orifices.

(5) Remove the screws from thje console door hinges and remove the door.

(6) Remove the screws securing the front panel to the top box assembly. Remove the self-tapping screws from the middle and bottom brackets securing the front panel to the inboard partition. Remove the front panel.

(7) Remove the three screws attaching the top box assembly to the inboard pArtition and the two screws and packing washers attaching the top box to the bulk-head. Remove the box assembly and retain the packing washers.

D. Install

(1) Comply with the electrical safety precautions.

(2) Position the top box assembly. Attach it to the bulk-head with two screws and packing washers, and to the inboard partition with three screws.

<u>NOTE</u>: The packing washers and positioned between the top box lugs and the bulkhead.

(3) Position the front panel. Attach it to the top box assembly with two screws, and to the inboard partition with self-tapping screws through the middle and bottom brackets on the panel.

(4) Fit the console door and attach it by its hinges to the bulkhead.

(5) Remove the blank covers and fit the flexible hose to the air louvre flange. Secure it with a worm-drive clip.

(6) Position the standby filament lamp assembly on the light fitting; secure it with two screws.

(7) Connect the door fluorescent tube unit electrical cables to the cable loom with in-line splices in accordance with WDM 91-17-18 and 20-42-12. Secure the cable loom to the bulkhead with P-clips.

(8) Install the ballast units on the inboard partitions (Ref.33-22-00, Removal/Installation).

D. Conclusion.

(1) Close the console door ensuring that the door is retained closed by the release mechanism.

(2) Close the toilet cabinet door.

(3) Test the toilet lights. (Ref.33-22-00, Adjustment/Test).

DRIP TRAY (TOILET) - REMOVAL/INSTALLATION

CAUTION: IT IS IMPORTANT THAT THE HIGHEST STANDARD OF DRIP TRAY SEALING IS MAINTAINED TO MINIMIZE THE RISK OF POSSIBLE DAMAGE TO UNDERFLOOR EQUIPMENT IN THE EVENT OF FLUID SPILLAGE WITHIN THE TOILET AREA.

1. General

The drip trays in each toilet are formed from thermo-plastic toughened PVC sheet. They consist of two sections, one L-shaped, the other rectangular, except for No.1 toilet, where the L-shaped section is made in two parts. The standing area tray has a vinyl floor covering bonded to it with an adhesive. The drip trays are clamped together with capping strips.

2. Drip Tray - Standing Area (Ref. Fig. 401)

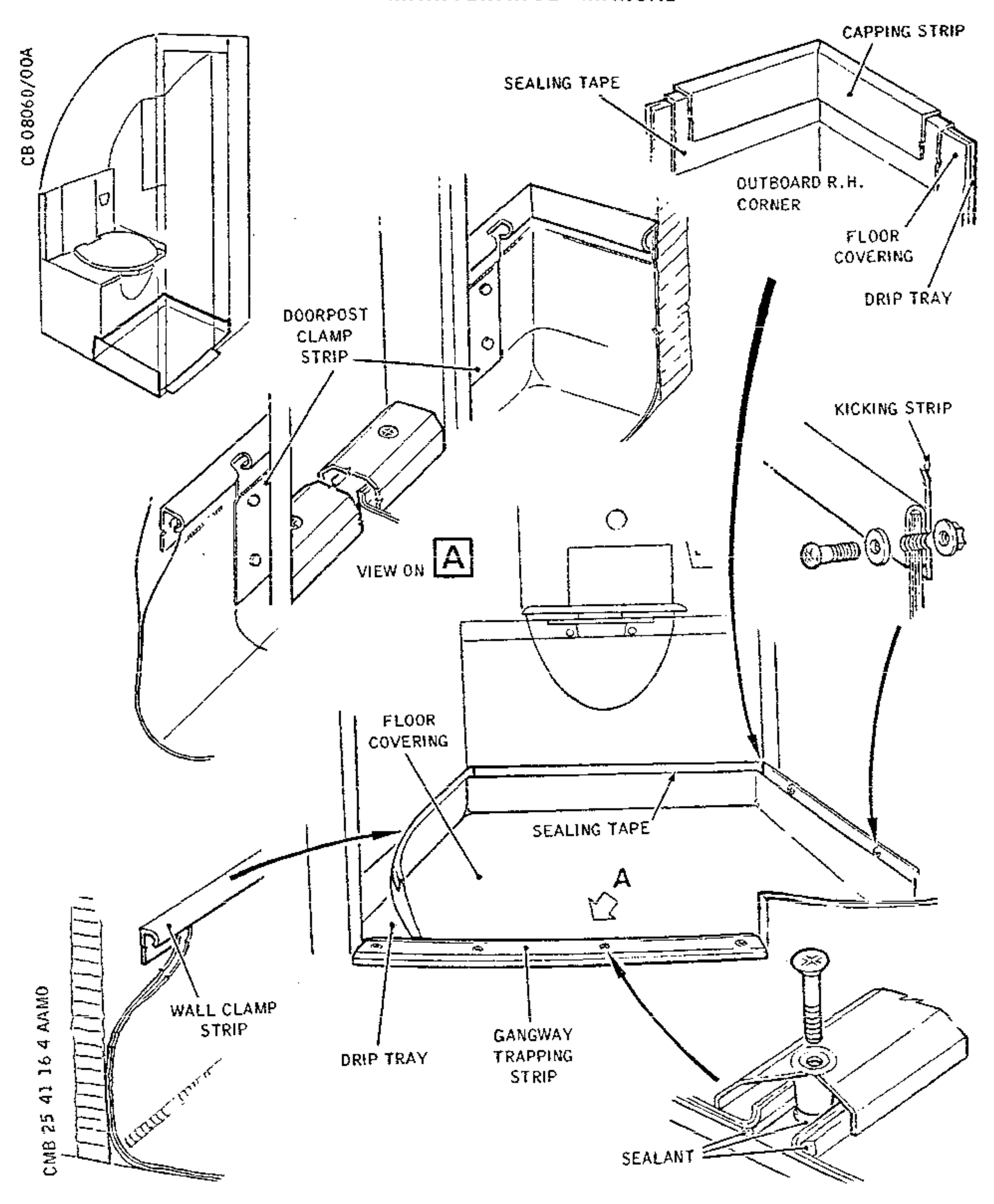
A. Equipment and Materials

	DESCRIPTION	PART NO.
R	2in Sealing tape CM717 (Ref. 20-30-00, No. 161)	-
	Sealant RTV 731 (Ref. 20-30-00 No. 364)	-
R	Sealant PR 1422 DTD900-4709 (Ref. 20-30-00, No. 358)	-
R	Sealant JC-5A (Ref. 20-30-00, No. 382)	-
	Boscoprene 2402 (Ref. 20-30-00, No. 328)	-
	Cleaning solvent BAC M302 (Ref. 20-30-00, No. 473)	-

B. Prepare to Remove

(1) Remove the WC bench assembly (Ref. 25-41-14, Removal/Installation).

C. Remove



Drip Tray - Installation
Figure 401

(1) Remove the gangway trapping strip from the door threshold.

(2) Remove the crimped capping strip/s from the outboard edge of the drip tray.

(3) Remove the two screws, washers and nuts from the capping strip under the toilet cabinet. Access to the nuts is gained by lowering the waste bin and water heater access doors.

(4) Remove the sealing tape from the drip tray joints.

R **ON A/C 003-007,

(5) Remove the self tapping screws securing the clamp strip on the doorpost each side of the doorway.

**ON A/C 001-002,

(5) Not applicable

(6) Break the seal between the drip tray and floor in the doorway. Manipulate the drip tray to clear the clamp strip on the bulkhead and remove the drip tray.

(7) Remove the floor covering and old sealant from the drip tray. Clean the surfaces with general purpose cleaning solvent BAC M302.

D. Install

(1) Bond vinyl floor covering to the drip tray with Boscoprene 2402. Drill through the holes for the clamp strip.

(2) Manipulate the drip tray to engage its edges under the wall clamp strip.

(3) Reseal the drip tray with new CM 717 sealing tape over the joints. Apply a bead of sealant under the edge of the drip tray at the doorway, continue the bead to the top of the drip tray flange at the toilet doorposts.

<u>NOTE</u>: The sealants available are not compatible, and the original sealant type must be used. RTV 731 is identified by a white deposit; PR 1422 DTD900-4709 is identified by a red/ brown deposit.

(4) Fit the capping strip with the two holes over the edges of both trays under the toilet cabinet side of the tray. Align the holes, and fit the screws, washers and nuts. Hand tighten the nuts.

(5) Fit the capping strip/s over the edges of both trays on the outboard side. Crimp the capping strip/s along the whole length so that the capping strip/s grip the trays together.

**ON A/C 001-002,

(6) Not applicable

R **ON A/C 003-007,

(6) Fit a clamp strip on the doorpost each side of the doorway and secure it with self tapping screws.

(7) Fit and seal the gangway trapping strip at the door threshold with sealant RTV 731 or sealant PR 1422 DTD900-4709 as appropriate and secure them with bolts liberally coated with JC-5A compound on the threads and shank. Wipe off excess compound after assembly (Ref. 20-22-14).

NOTE: The sealants available are not compatible, and the original sealant type must be used. RTV 731 is identified by a white deposit; PR 1422 DTD900-4709 is identified by a red/brown deposit.

E. Conclusion

(1) Refit the WC bench assembly (Ref. 25-41-14, Removal/Installation).

TOILET ROOF PANEL - REMOVAL/INSTALLATION

CAUTION: HANDLE THE PANEL WITH CARE TO AVOID MARKING OR SCRATCHING THE DECORATIVE FINISH.

OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The toilet roof panel, secured in position by quick release fasteners, completes the furnishing trim. The panel has a loudspeaker grille and perforations for ventilating air.

2. Roof Panel

A. Remove

(1) Press the edge of the sidewall panel nearest the toilet mirror gently upwards to expose the edge of the panel.

NOTE: If necessary, hook a suitable tool around the edge of the panel, slide the tool along the panel edge until a fastener is contacted then pull the panel down to release the fastener. Manufacture the tool from 0.06 in (1.5 mm) strip with a 0.25 in (6mm) flange at one end.

(2) Grasp the outboard edge of the roof panel with the finger tips and pull firmly downwards to release the spire fasteners from their receptacles.

(3) Ease the panel outboard to disengage the spring clips on the inboard edge from the support angle on the fore and aft bulkhead.

B. Install

(1) Observe the electrical safety precautions.

(2) Ensure that the air duct aperture is unrestricted.

(3) Position the roof panel and engage the spring clips over the support angle on the fore and aft bulkhead.

(4) Press the panel firmly upwards to ensure that the spire fasteners are correctly engaged in their receptacles. The roof panel must be flush with

the sidewall panel.

TOILET No.2 REMOVAL AND INSTALLATION

WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND SURROUNDS CLEAN AND FREE FROM CONTAMINATION.

OBSERVE THE OXYGEN SAFETY PRECAUTIONS DETAILED IN 35-00-00.

OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

Toilet No. 2 is situated opposite No. 3 toilet on the left hand side of the passenger compartment between stations 926-959.8.

To implement certain non-destructive testing, and maintenance procedures, the toilet compartment will need to be removed.

2. Equipment and Materials

DESCRIPTION		PART NO.
(a)	Circuit breaker safety clips.	-
(b)	Torque spanners 0-700 lbf in (0-8 mdaN).	-
(c)	Waterproofed fabric sealing tape 2 in (50mm) (Ref. 20-30-00).	-
(d)	Sealant RTV 102.	-
(e)	Sealant PR422.	-
(f)	General purpose cleaning solvent BACM 302 (Ref. 20-30-00).	-
(g)	Rubber suction pads (with handle).	-

3. Removal - Toilet Compartment, No. 2

A. Preparation

(1) Drain the water system (Ref. 12-36-00).

(2) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
CTR LH TOILET WATER HTR SUP	14-216	M229	D17
TOILET MAIN LTS SUP	14-216	L985	C10
CABIN NIGHT LTS SUP	5-213	L455	D19
PA SUP	1-213	R139	K20
PASS CALL SUP	15-216	M78	A22
FASTEN S/BELTS SUP	1-213	W191	L8
RAZOR OUTLET SUP	15-215	M211	G5

(3) Remove two rows of passenger seats (Ref. 25-20-00).

(4) Remove toilet door (Ref. 52-51-12).

(5) Remove all loose equipment and toiletries.

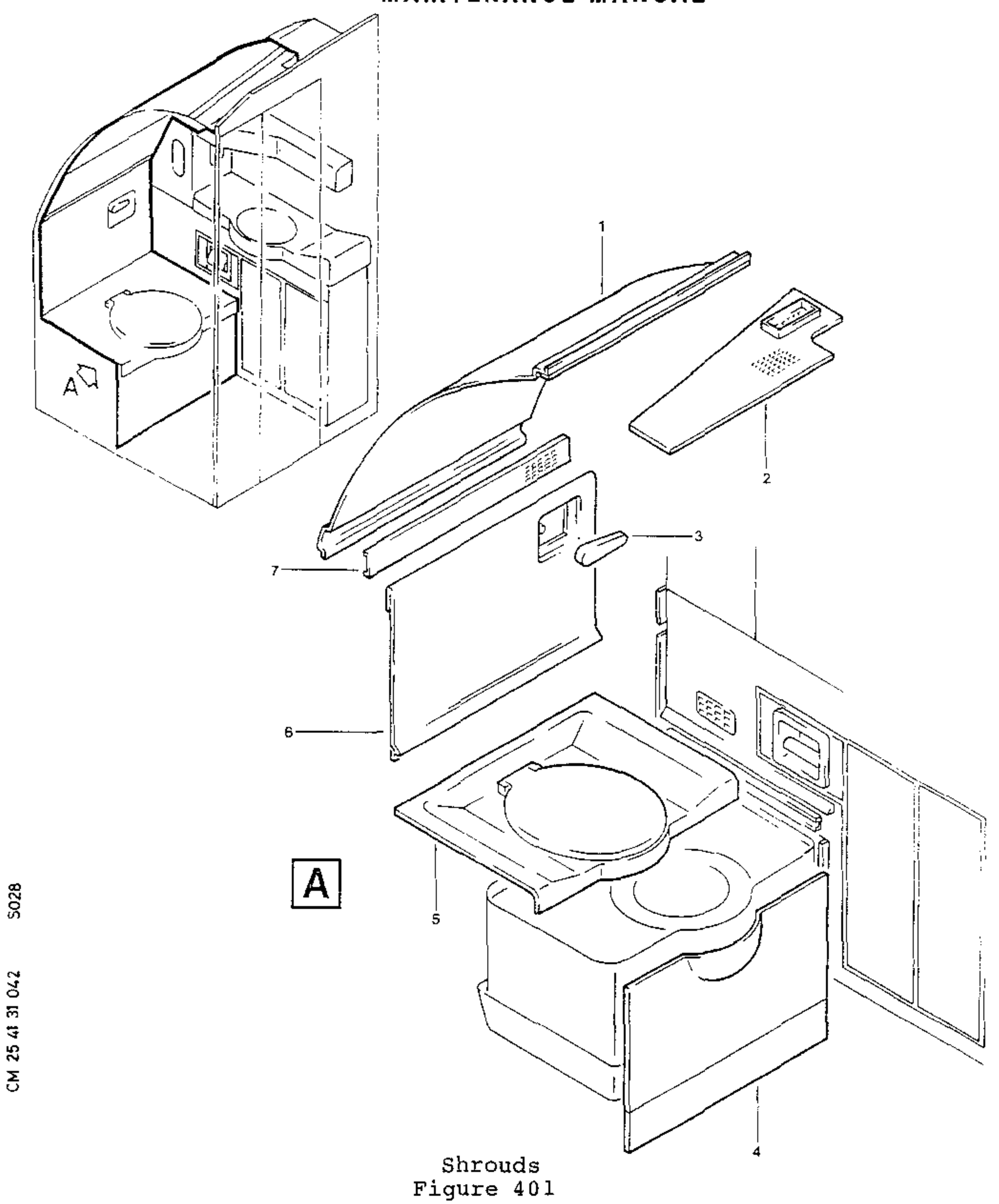
(6) Remove toilet mirror (Ref. 25-41-12).

B. Remove Shrouds (Ref. Fig. 401)

CAUTION: HANDLE ALL PANELS WITH CARE TO AVOID MARKING OR DAMAGING PANELS AND DECORATIVE COVERING.

(1) Grasp the edge of ceiling panel (2), pull panel downwards releasing dual lock.

(2) Disconnect flush mechanism to flush handle (3) (Ref. 38-41-15). Pull outboard panel (6) edges firmly, releasing dual lock.



Shrouds
Figure 401

(3) Pull edges firmly on air vent panel (7) releasing dual lock.

(4) Pull lower edges firmly on ceiling panel (1), pull upper edges firmly releasing dual lock.

(5) Slide top panel and toilet seat (5) inboard and remove.

(6) Pull front panel (4) side edges firmly to release dual lock.

C. Remove Compartment Doors (Ref. Fig. 402)

(1) Trash Bin Door

(a) Pull latch (10) outwards to release from strike plate (8) on vanity unit.

(b) Once unlatched lift the door (11) upwards to clear the securing studs (12) on the base.

(c) Remove trash bin and store in a safe place.

(2) Water Compartment Door

(a) From inside trash bin compartment against side wall, pull latch keep (9) downwards to release bolt (16).

(b) Swing door open sufficiently to lift door upwards to release hinge pins (14) from hinge plates (13).

(3) Toilet Roll Holder

(a) Push bottom right hand corner of toilet roll holder (7), to release pin,latch (6) from bracket (4).

(b) Swing toilet roll holder (7) open sufficiently to lift assembly upwards releasing hinge pins (2) from hinge plates (3).

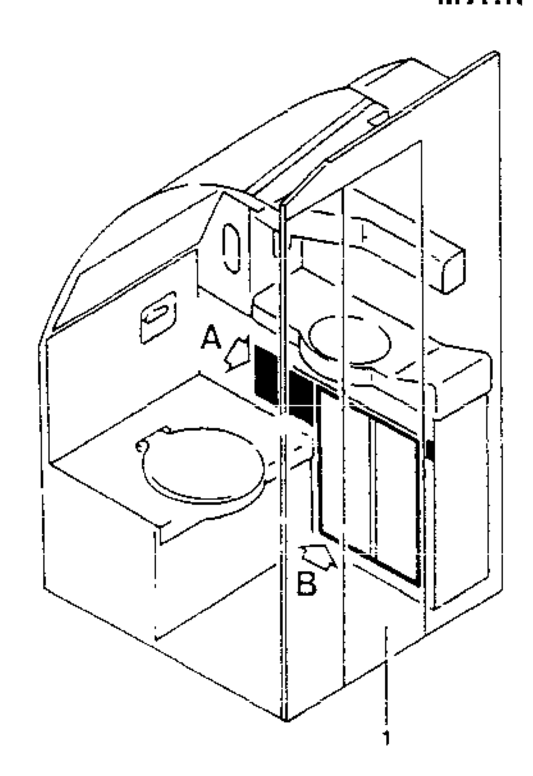
(c) Lift toilet roll holder (7) away from vanity unit (5).

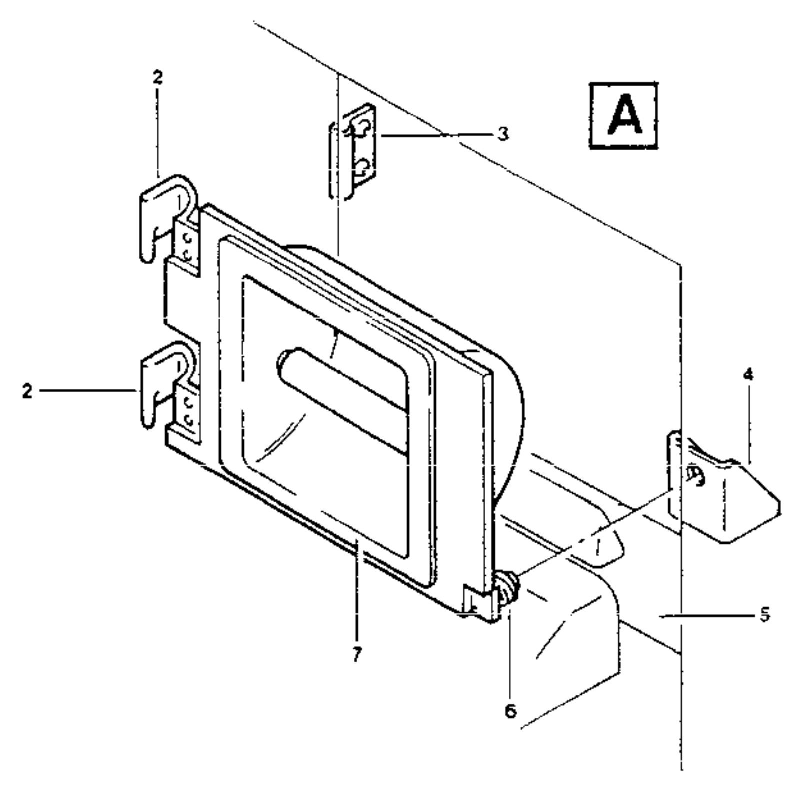
D. Remove Standing Area Drip Tray (Ref. Fig. 403)

(1) Remove countersunk screws (7) from floor threshold (4).

(2) Re-install screw (7) one only into angle to support base of gangway bulkhead.

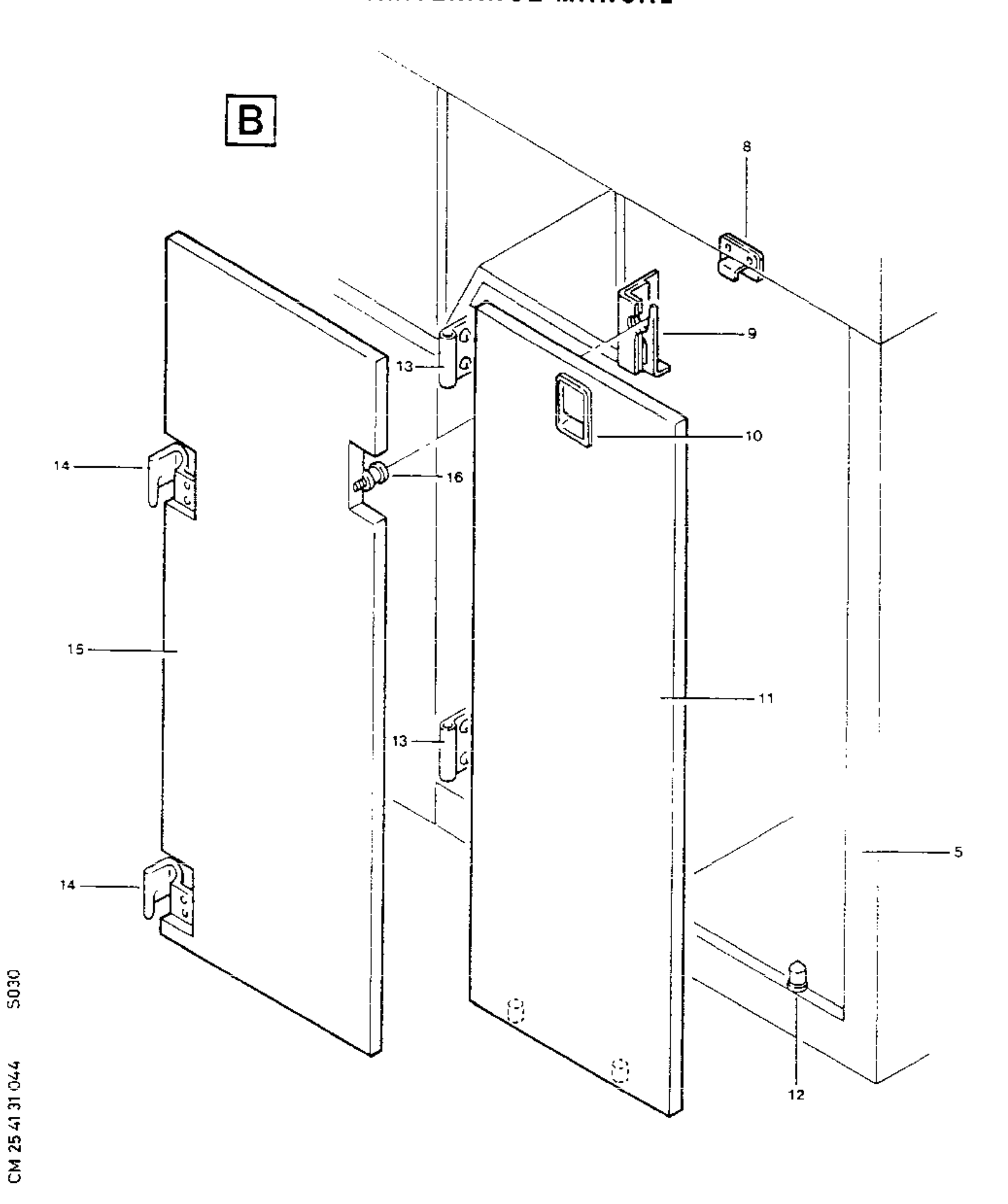
(3) Cut the bead of sealant (5) between the floor and drip tray.





CM 25 41 31 043 S029

Compartment Doors
Figure 402
(Sheet 1 of 2)



Compartment Doors
Figure 402
(Sheet 2 of 2)

(4) Carefully cut waterproofed fabric sealing tape (3) along drip tray flange joining outboard drip tray (8).

(5) Lift drip tray (2) from the forward facing edge, and slide clear of vanity unit (1).

(6) Clean both the floor area and drip tray from sealant using cleaning solvent BACM 302.

E. Remove Sink Waste Water Pipes (Ref. Fig. 404)

(1) Slacken worm drive clips (7) and slide joint sleeves (9) free from sink waste connection (2) and water overflow valve connection (3).

(2) Ease sink waste pipe (4) from position and remove from compartment.

(3) Slacken worm drive clips (6) slide joint sleeves (8) free from sink overflow connection (1) and water overflow valve connection (3).

(4) Ease waste pipe (5) from position and remove from compartment.

(5) Remove water overflow valve (3) (Ref. 38-31-18).

F. Remove Toilet Waste Pipes (Ref. Fig. 405)

(1) Disconnect sluice pipe assembly (3) and water supply pipe (2) from top of toilet tank (5) (Ref. 38-31-11).

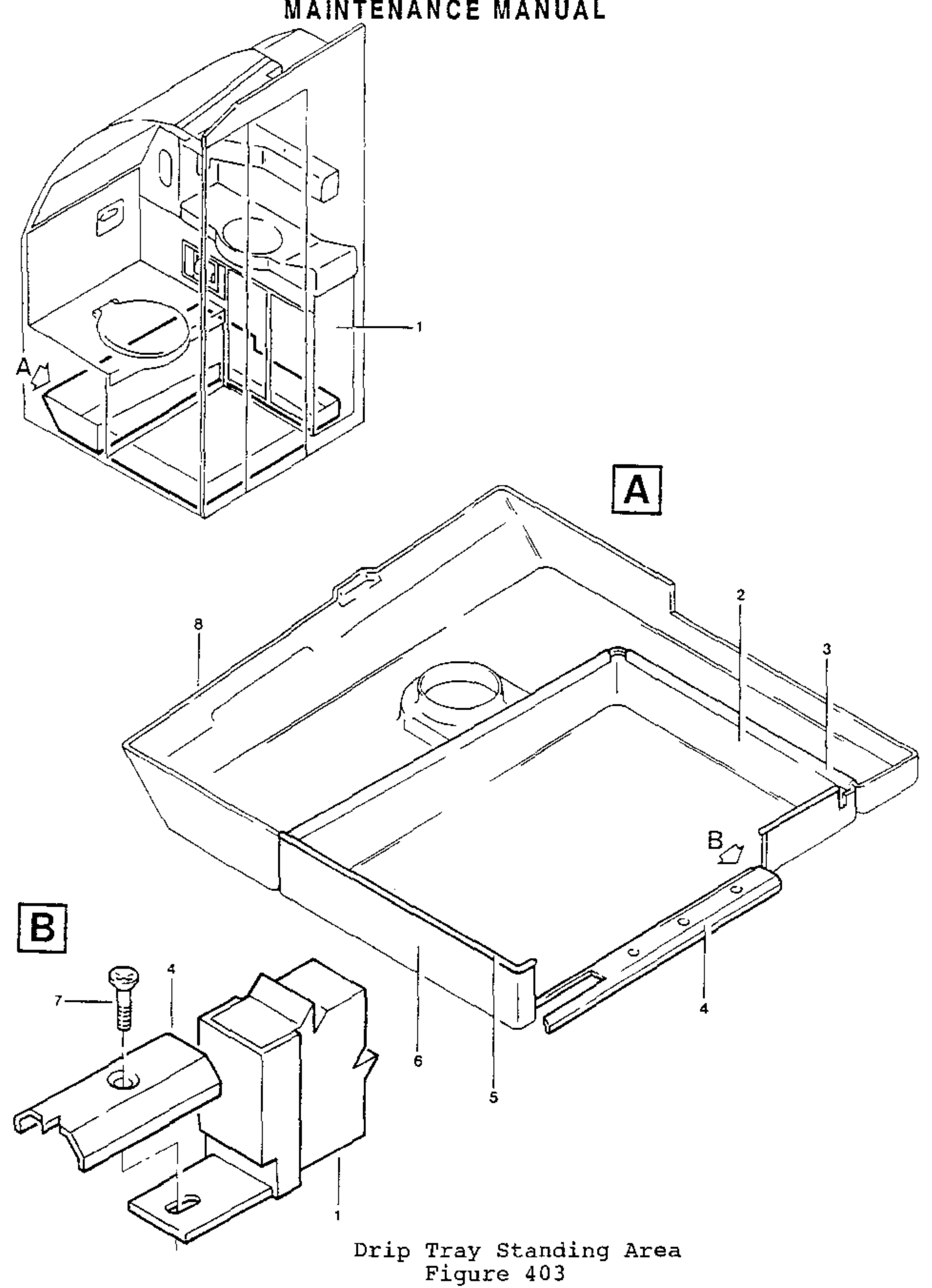
(2) Disconnect pneumatic flush pipe from air reservoir tank (Ref. Removal/Installation Pneumatic Flush Lines Figure 405).

(3) Remove toilet tank (5) (Ref. 38-31-11).

(4) Slacken worm drive clips (10) and slide sluice pipe assembly (3) and joint sleeve (11) clear of stub pipe (12) on air flush valve (1).

(5) Slacken worm drive clips (13) and slide joint sleeve (14) down pipe assembly (2) clear of stub pipe (15) on air flush valve (1).

(6) Slacken worm drive clips (8) slide supply pipe (2) and joint sleeve (9) free from supply pipe (4) in water heater compartment.



Drip Tray Standing Area
Figure 403

(7) Slacken worm drive clips (6) and slide joint sleeve (7) and supply pipe (4) free from floor stub pipe. Remove supply pipe (4) from water heater compartment.

G. Remove Pneumatic Flush Lines (Ref. Fig. 406)

(1) Unscrew nut (7) and disconnect lower tee-piece (8) from air reservoir (6) on side of toilet tank.

(2) Remove toilet tank (Ref. 38-31-11).

(3) Disconnect pipe assembly (3) from corner fitting (2) and union (4).

(4) Disconnect and remove corner fitting (2) from air flush valve (1).

(5) Unscrew union (4) from pipe assembly (5).

(6) Disconnect pipe assembly (5) from tee-piece (8).

(7) Disconnect pipe assembly (9) from tee-piece (8) and remove from elbow (10).

(8) Disconnect end fitting (12) from floor stub fitting (13) remove and uncouple pipe assembly (11) and elbow (8).

(9) Disconnect and remove air flush valve (1) (Ref. 38-41-15).

H. Remove Water Supply in Vanity Unit (Ref. Fig. 407)

(1) Remove grommet (8) from aperture around top connection on water heater (3).

(2) Slacken end fitting (9) and (6), slide pipe assembly (11) out from vanity unit.

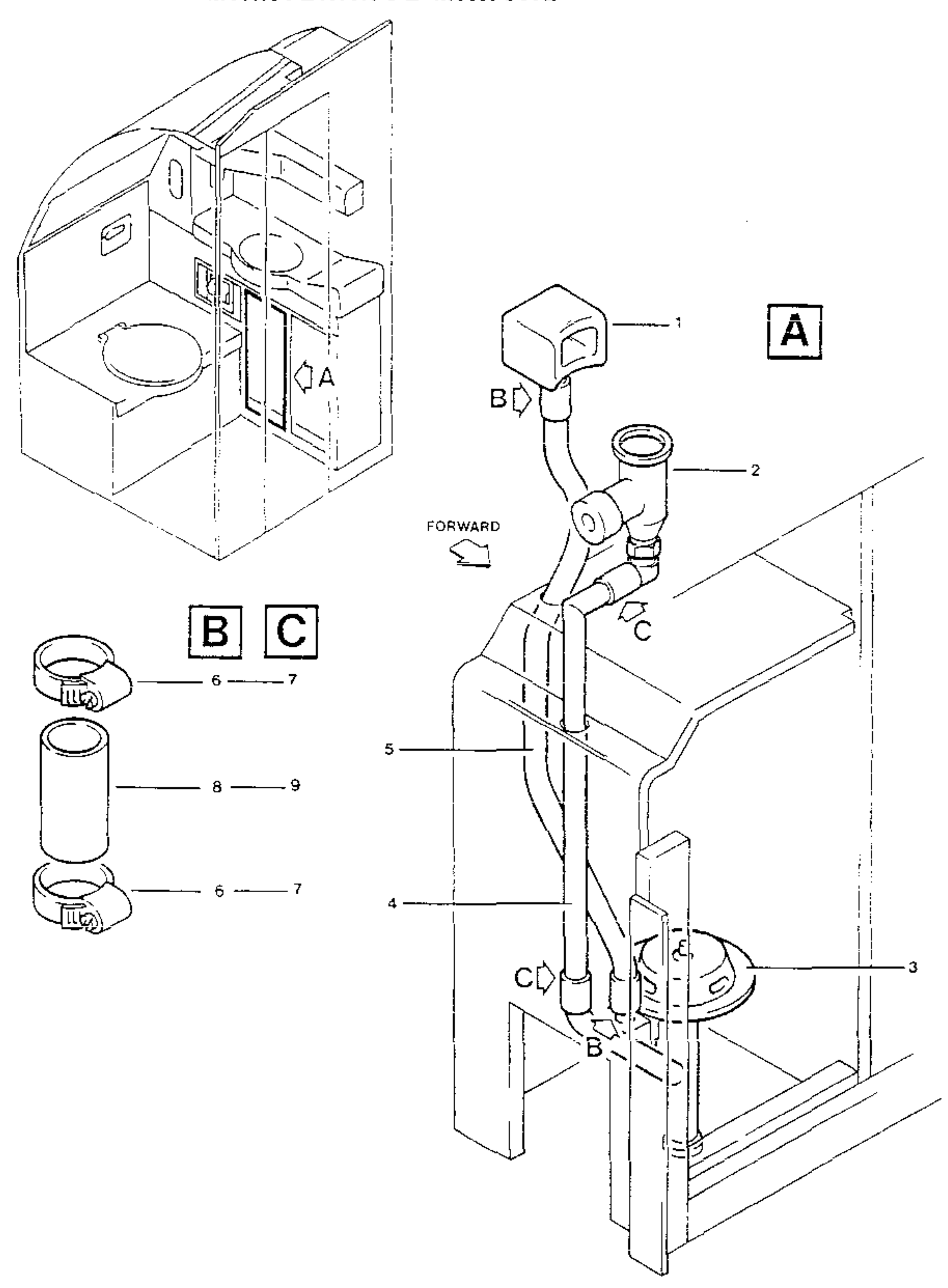
(3) Unscrew and remove union (10).

(4) Slacken union (5) on line drain valve (7) and union (15) on tee piece (14).

(5) Slide pipe assembly (4) out from water heater compartment.

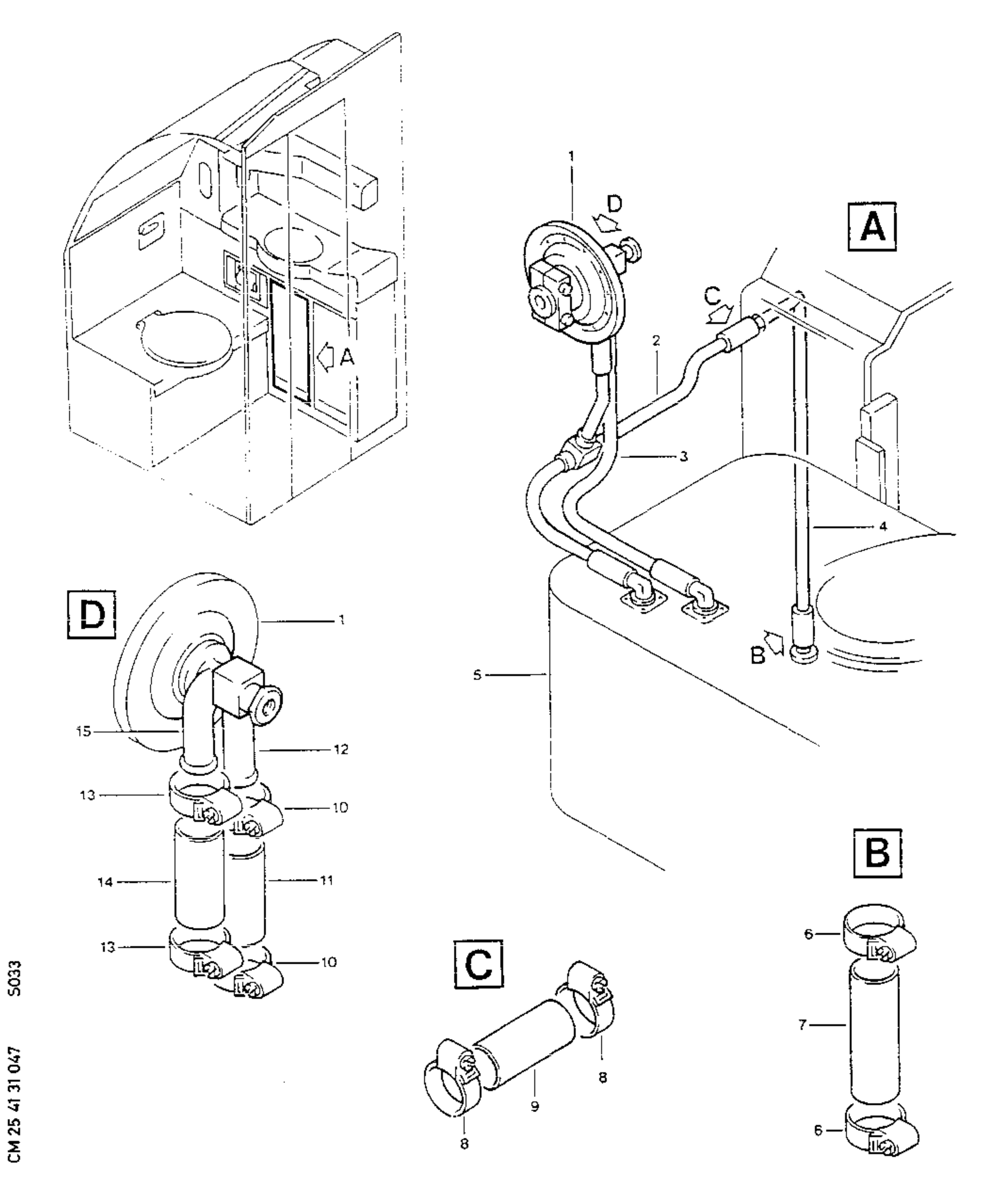
(6) Unscrew union nut on floor and remove line drain valve (7) (Ref. 38-12-15).

(7) Unscrew unions (22) on hot water supply pipe (2) and remove.



CM 25 41 31 046 S032

Sink Waste Water Pipes
Figure 404



Toilet Waste Pipes
Figure 405

(8) Disconnect union (13) from tee-piece (14) and union (23) on solenoid, slide pipe assembly (12) out of water heater compartment.

(9) Unscrew unions (23) on water supply pipe (1) from solenoid valve to faucet and remove.

(10) Unscrew locking nuts (20) on 45° elbows (22) and remove with washers (21) and O rings (19), from top of water heater and solenoid valve.

(11) Unscrew locking nut (17) fully on base of water heater (3), unscrew tee-piece (14) and remove with washer (16) and O ring (18).

(12) Remove water heater (3) (Ref. 38-12-11).

(13) Cover inlet ports on solenoid valve with plastic protective caps.

J. Remove Water Supply Pipe (Ref. Fig. 408)

(1) Slacken union (2) on fore and aft bulkhead water supply pipe (3).

(2) Disconnect from ceiling supply pipe (1).

K. Remove Fresh Air Supply Pipe (Ref. Fig. 409)

WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND SURROUNDINGS CLEAN AND FREE FROM CONTAMINATION.

OBSERVE THE OXYGEN SAFETY PRECAUTIONS DETAILED IN 35-00-00, SERVICING.

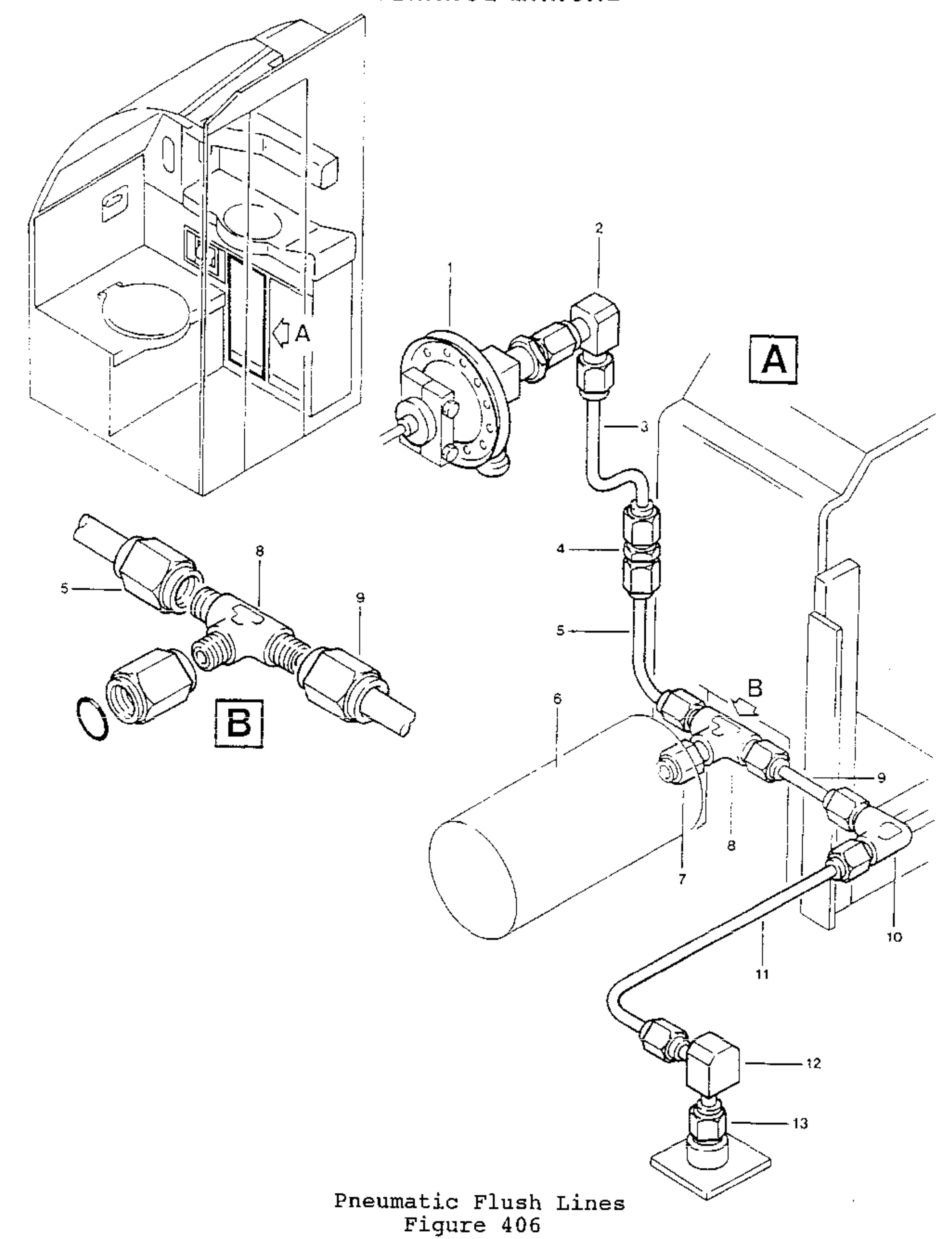
(1) Release screws (9) and washers (10) and remove smoke detector cover (11). Store in a safe place.

(2) Release screws (13) and remove smoke detector (12) from dispenser assembly (14). Store in a safe place.

(3) Remove air freshener holder (7) at base of cosmetic rack (6).

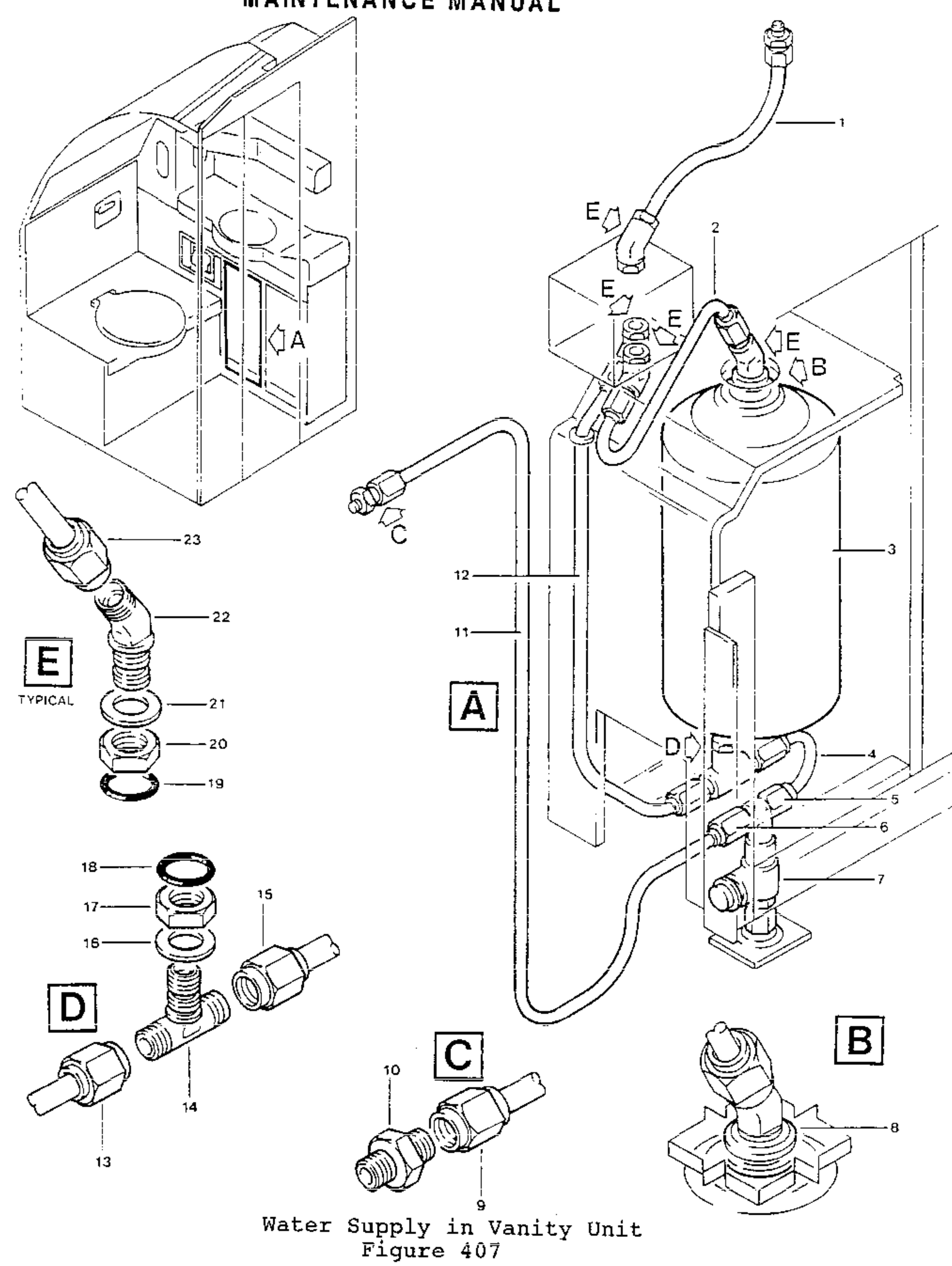
(4) Release screws (8) and remove cosmetic rack cover (6).

(5) Release shoot bolt (15) and open cosmetic rack door (16).



CM 25 41 31 048 S034

Pneumatic Flush Lines
Figure 406



Water Supply in Vanity Unit
Figure 407

(6) Slacken clip (18) and gently slide supply pipe (2) free of gasper (17).

(7) Slacken clip (1) and gently slide supply pipe (2) free from aircraft supply in ceiling.

(8) Feed supply pipe (2) through apertures in cosmetic rack and remove from compartment.

(9) Close and lock cosmetic rack door (16).

(10) Replace cosmetic rack cover (6) with screws (8).

(11) Slide air freshener (7) back into position on cosmetic rack (5).

L. Remove Electrical Services

(1) Disconnect electrical receptacle from solenoid valve in water compartment.

(2) Disconnect main cable loom receptacle on fore and aft bulkhead lintel, from aircraft cable loom.

M. Remove Securing Spigots (Ref. Fig. 410)

(1) Remove bolts (2) and washers (1) from LH bulkhead (3) mounting locations on seat post.

(2) Remove bolts (9) and washers (8) from spigot (7) on the main toilet unit (5).

(3) Release spigot (7) and packer (6) from spigot housing (4) and remove.

N. Remove LH Bulkhead/Main Toilet Unit (Ref. Fig. 411)

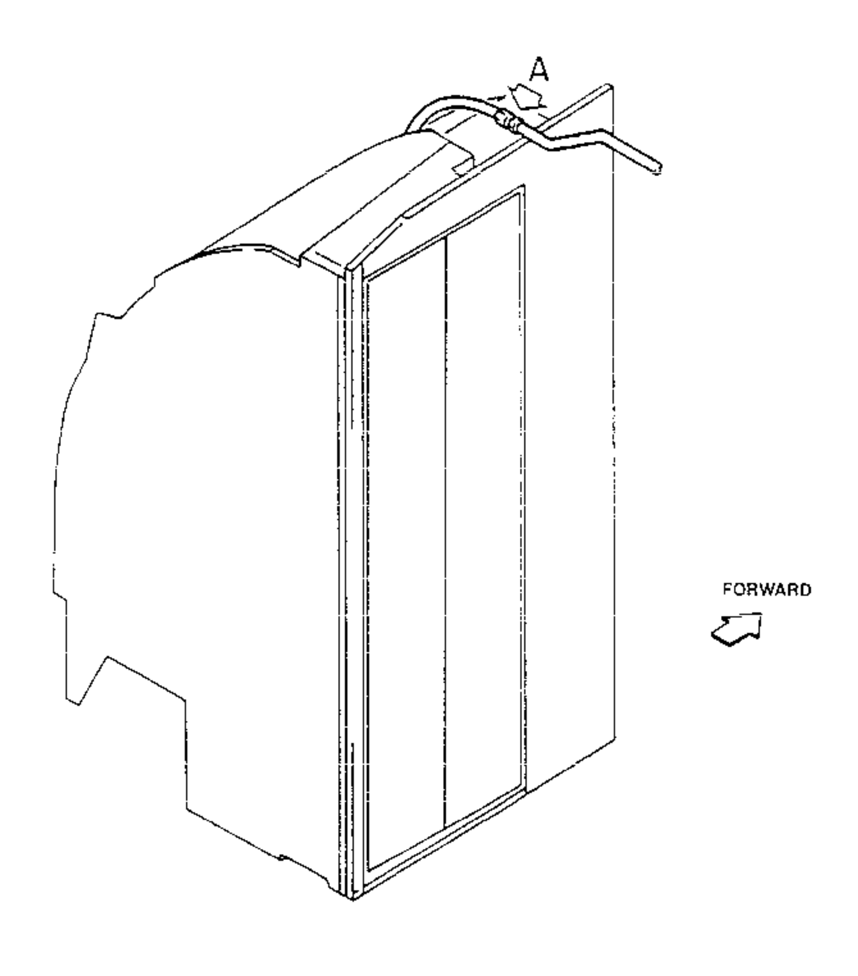
(1) Remove hexagonal bolt (1) and washer (2) in aperture (4) on fore and aft bulkhead (3). Access is obtained from inside vanity unit.

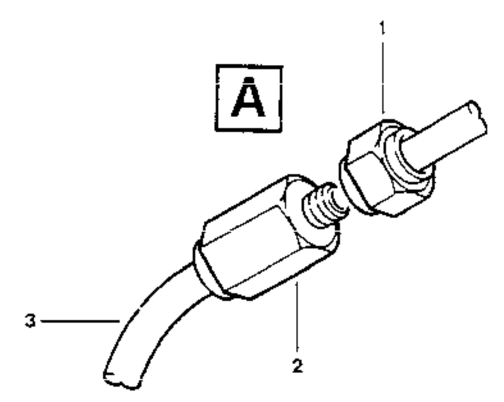
(2) Remove bolt (21) and washer (20) from bracket (19) on LH bulkhead.

(3) Remove countersunk screw (14) from angle (15) on gangway bulkhead (11).

(4) Remove screws (8) and washers (9) from bracket (10) on LH bulkhead (7) and main toilet unit (11).

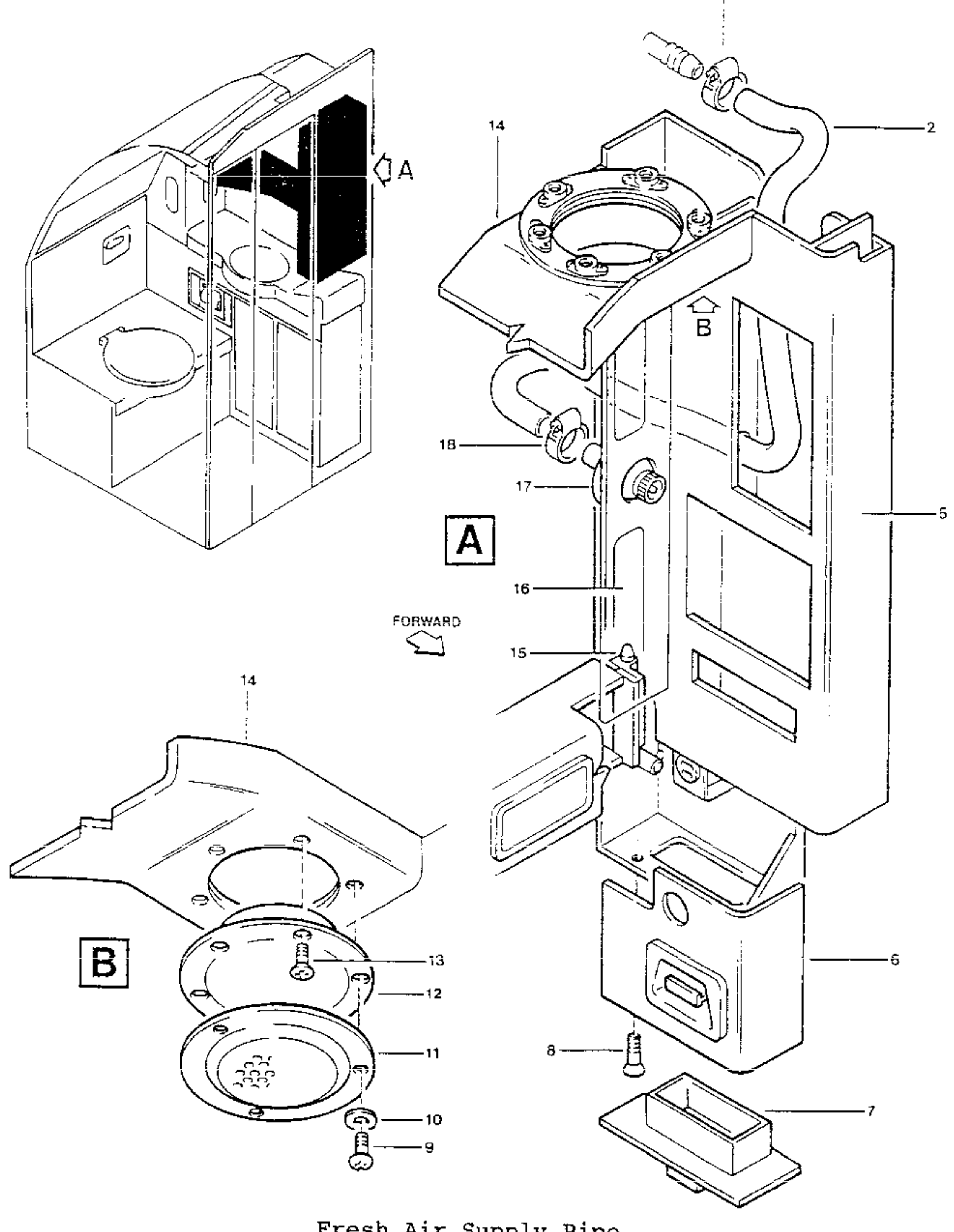
(5) Remove bolts (18) and locking washers (17) from apertures (16) on fore and aft bulkhead.





CM 25 41 31 050 S036

Water Supply Pipes
Figure 408



Fresh Air Supply Pipe
Figure 409

(6) Ease LH bulkhead (7) and main toilet unit (11) apart with care, disconnect spigot (13) from aperture (12) on the lintel.

(7) Slide LH bulkhead (7) from location and remove.

(8) Slide main toilet unit (11) from location, lift clear of drip tray and remove.

(9) Strip away sealant from foot fittings in seat track rails and remove locking plate (6) and foot fittings (5).

(10) Clean fitting thoroughly with cleaning solvent BACM 302 (Ref. 20-30-00).

P. Remove Spigot Housings (Ref. Fig. 412)

(1) Remove bolts (5) and washers (4) releasing block (3) and housing plates (2) from aircraft structure (1).

Q. Remove Tank Mounting Brackets (Ref. Fig. 413)

(1) Remove sealant from floor mounting bolts (1).

(2) Remove bolts (1) and washers (2) from mounting brackets (3).

(3) Remove mounting brackets (3) and rubber washer (4) from drip tray (5).

R. Remove Small Bore Pipe Connection on Floor (Ref. Fig. 414)

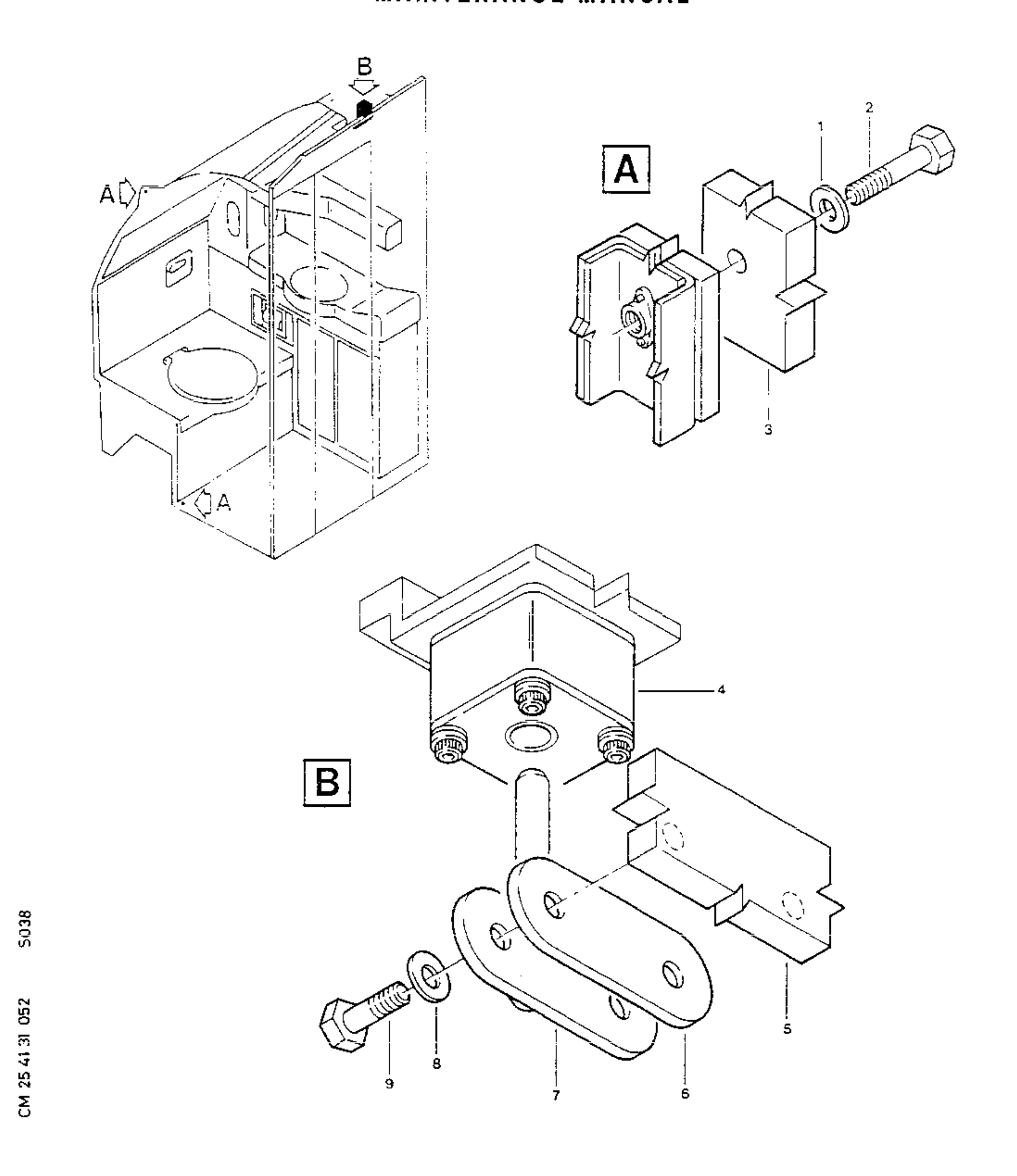
NOTE: To remove the drip tray, waste, water and air pipe floor connections must be removed. An assistant is required to hold the connection below the floor with a suitable spanner to prevent the assembly from turning when removing the retaining nut. Access below the floor is gained through access panel 131 VS in the lower baggage compartment.

Remove all sealant from floor connections, after removal thoroughly clean in cleaning solvent BACM 302.

(1) Remove the tank drain control cable (19) and conduit (Ref. 38-31-15).

(a) Remove the sealant, the sleeve seal (18) and the grommet seal (17) around the tank drain control cable conduit (19) at the inlet on the drip tray (16).

(b) Slide out and remove tank drain control cable and conduit.



Securing Spigots
Figure 410

(2) Remove line drain floor connections.

(a) Below the floor restrain floor connection (5) from turning, unlock and remove retaining nut (1), washer (2) and sealing ring (3).

(b) Withdraw the floor connection (5) and washer (4) from below the floor.

(c) Fit blanks in appropriate hole.

(3) Remove sink waste floor connection.

(a) Remove electrical bonding clips in accordance with 20-27-11.

(b) Below the floor restrain floor connection (6) from turning, unlock and remove retaining nut (10), washer (9) and sealing ring (8).

(c) Withdraw the floor connection (6) and washer (7) from below the floor.

(d) Fit blanks in appropriate holes.

(4) Remove air elbow floor connection.

(a) Below the floor restrain connection (13) from turning, unlock and remove retaining nut (11) washer (12) and sealing ring (15).

(b) Withdraw the floor connection (13) and washer (14) from below the floor.

(c) Fit blanks in appropriate hole.

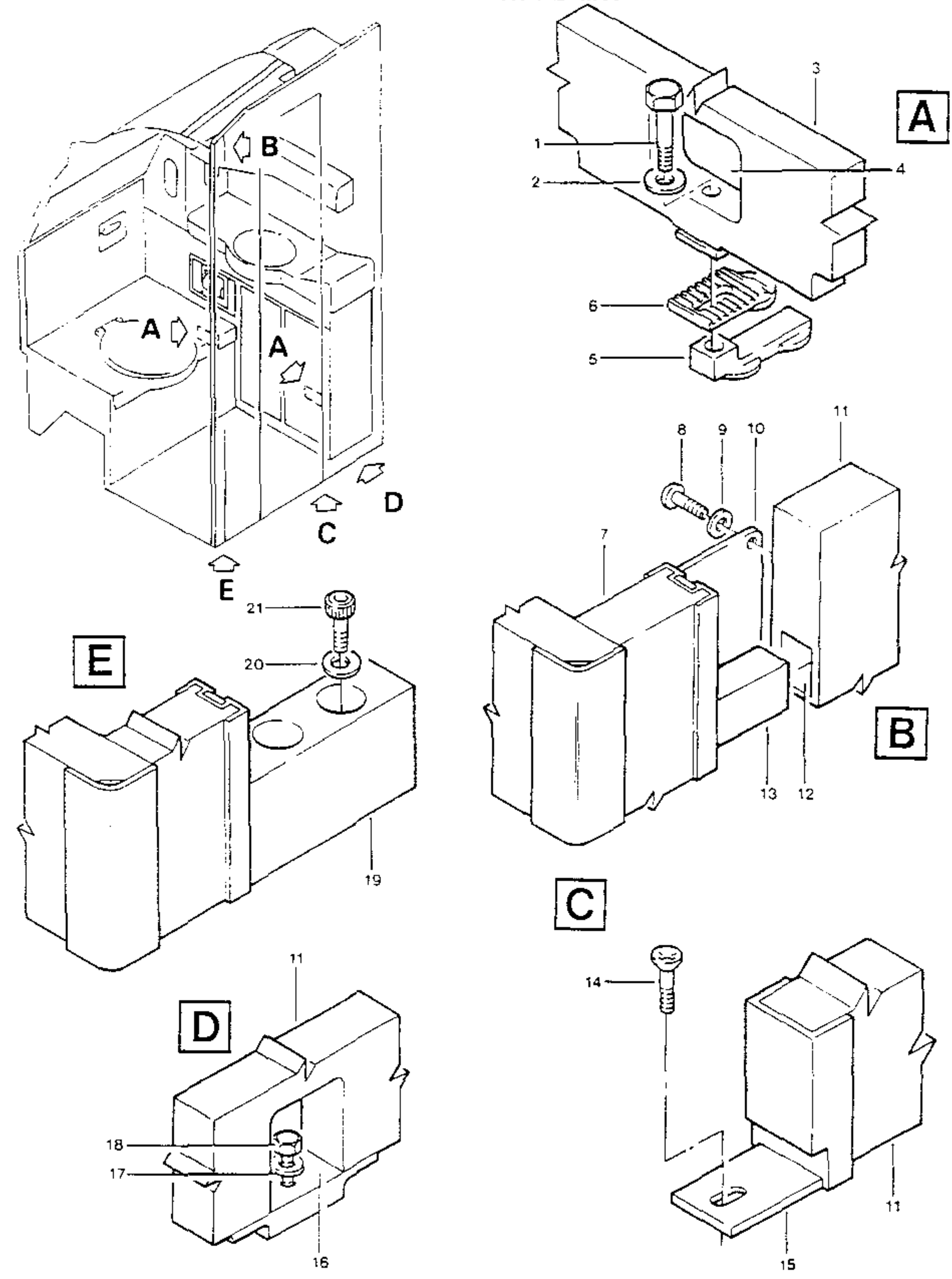
(5) Remove sluice and charge floor connection.

(a) Remove electrical bonding clips from pipe below the floor in accordance with 20-27-11.

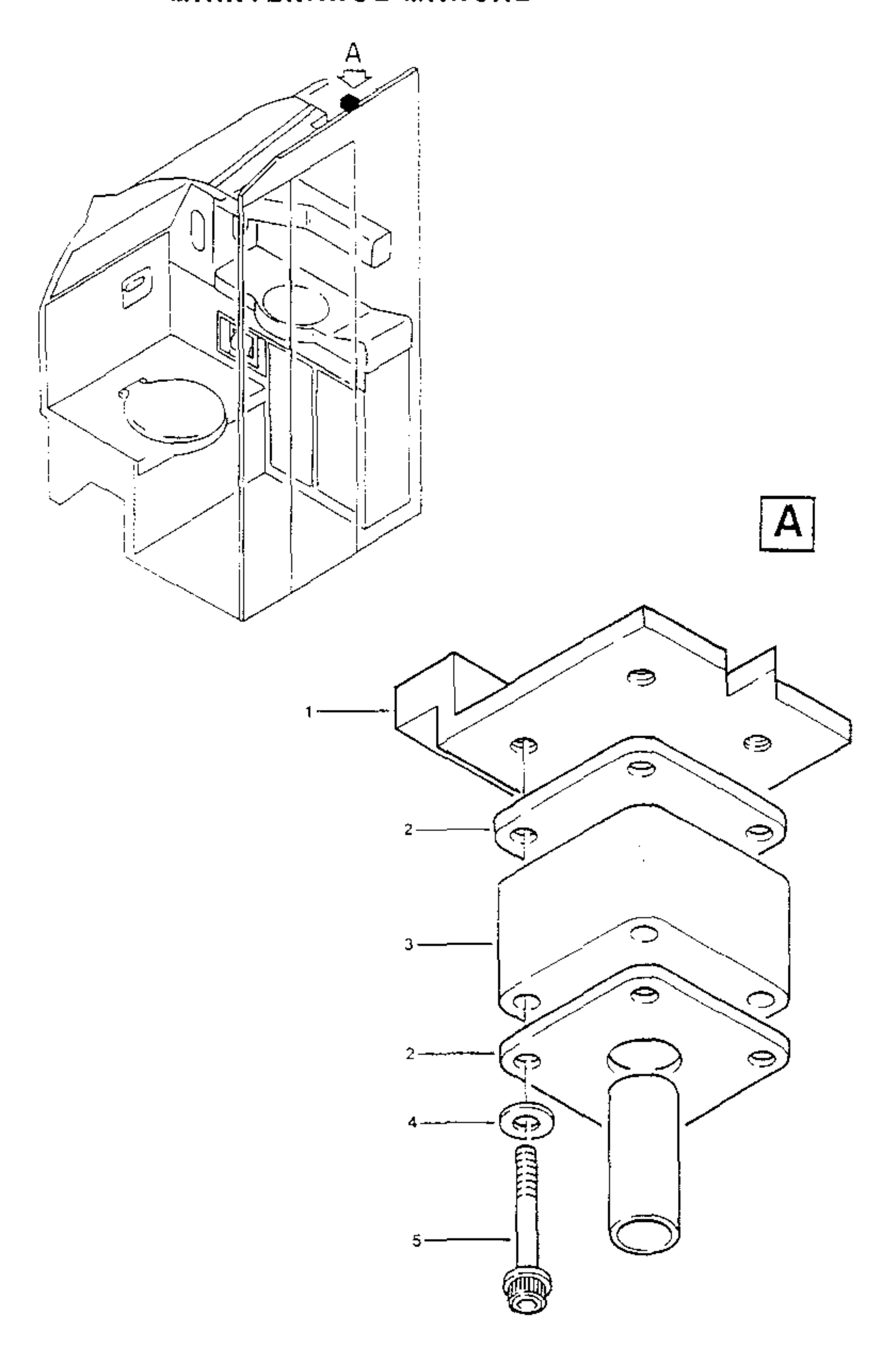
(b) Below the floor restrain connection (20) from turning, unlock and remove retaining nut (24) washer (23) and sealing ring (22) from connection above floor.

(c) Withdraw the floor connection (20) and washer (21) from below the floor.

(d) Fit blanks in appropriate hole.



LH Bulkhead/Main Toilet Unit
Figure 411



Spigot Housing
Figure 412

S. Remove Outboard Drip Tray (Ref. Fig. 415)

(1) Remove the tie-wrap (8) securing the drip tray flange (6) to the toilet tank drain pipe (9). Carefully sever the seal made by the bead of sealant (7).

(2) Strip the bead of sealant (3) from around the edge of drip tray (1), ease away drip tray (1) from the floor and tank drain pipe (9) and teleflex control cable (5).

(3) Thoroughly clean old sealant from all surfaces with cleaning solvent BACM 302.

4. Installation of Toilet Compartment, No. 2

A. Installation of Outboard Drip Tray (Ref. Fig. 415)

CAUTION: THE HIGHEST STANDARD OF DRIP TRAY SEALING MUST BE MAINTAINED TO MINIMIZE THE RISK OF POSSIBLE DAMAGE TO THE UNDERFLOOR EQUIPMENT AND STRUCTURE IN THE EVENT OF FLUID SPILLAGE WITHIN THE TOILET UNIT.

NOTE: Remove water system control lever (Ref. Removal/ Installation of Water Supply Pipes Figure 408) before proceeding with toilet compartment installation.

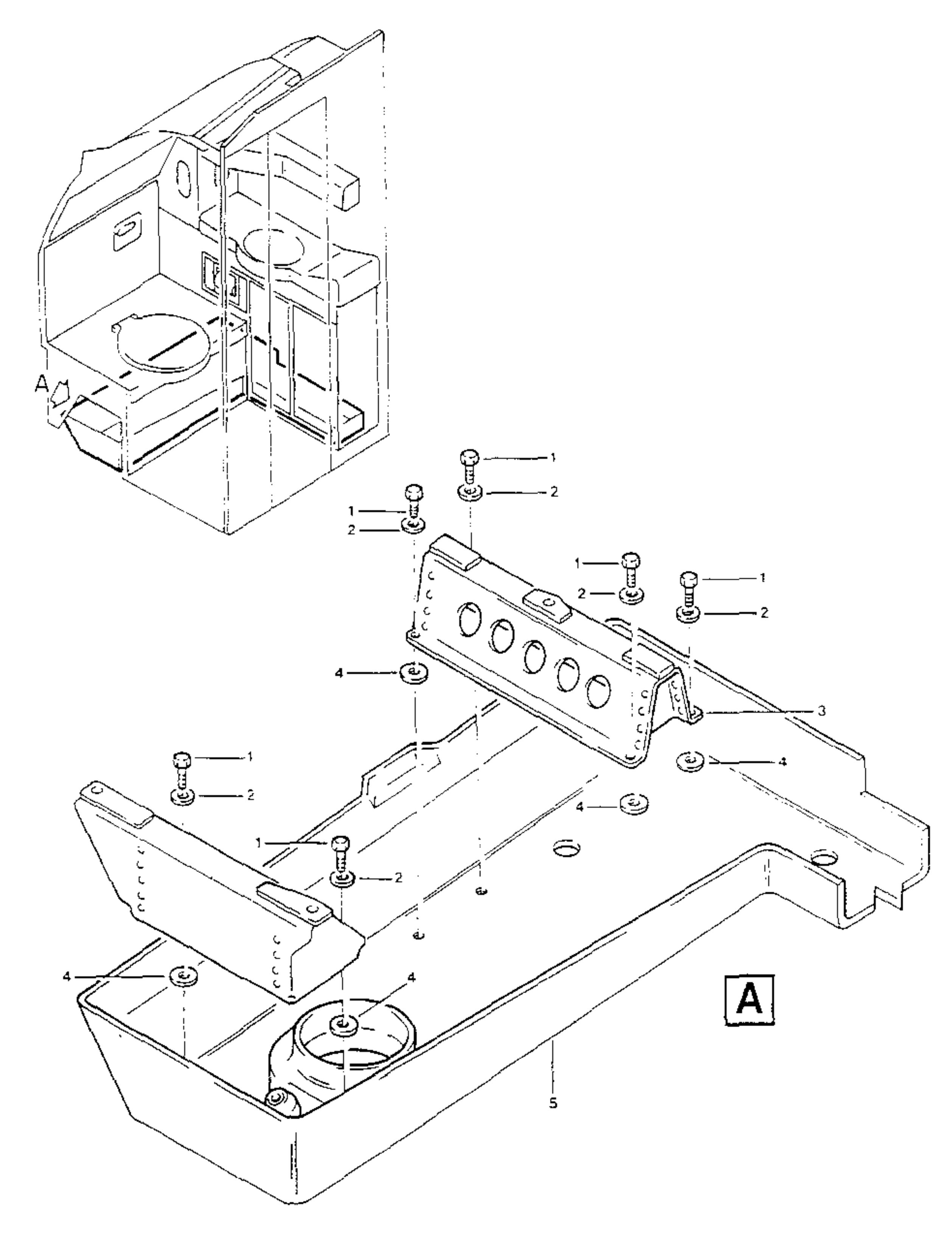
(1) Fit the drip tray (1) over the toilet drain pipe (9) and the teleflex control cable (5). Align the holes (2) for the pipe stub and the tank mounting bracket bolts (4). Press firmly over the drip tray surface.

(2) Seal around the edge of drip tray (1) with a bead of sealant RTV 102 (3).

(3) Seal the drip tray (1) to the toilet tank drain pipe (9) by applying a bead of sealant (7) RTV 102 at the lip between the drip tray flange (6) and the drain pipe (9). Secure the drip tray flange (6) to the pipe (9) with a tie wrap (8).

B. Install Small-Bore Pipe Connections On Floor (Ref. Fig. 414)

NOTE: An assistant is required to hold the connections below the floor, with a suitable spanner, to prevent the assembly from turning when the retaining nut is tightened. Access to the area below floor is gained through access panel 132 VS through the lower baggage compartment.



Tank Mounting Brackets
Figure 413

NOTE: Assemble pipes and couplings in accordance with 20-23-11 and 20-23-12.

Apply a bead of sealant RTV 102 around retaining nuts and drip tray on all pipe connections after torque tightening.

(1) Install sluice and charge floor connection.

(a) Remove the blanks from appropriate hole, fit a new washer (21) to the floor connection (20) and insert the connection through the hole in the floor, from below.

(b) Above the floor fit a new sealing ring (22), washer (23) and retaining nut (24). Do not tighten.

(c) Fit an electrical bonding clip to the pipe at each side of the joint sleeve and connect clips in accordance with 20-27-11.

(d) Hold elbow assembly below the floor, torque-tighten the elbow retaining nut (24), above the floor to between 645 and 655 lbf in (7.29 to 7.4 mdaN).

(2) Install air elbow floor connection.

(a) Remove the blanks, fit a washer (14) to the elbow union (13) and insert it through the appropriate hole in the floor from below.

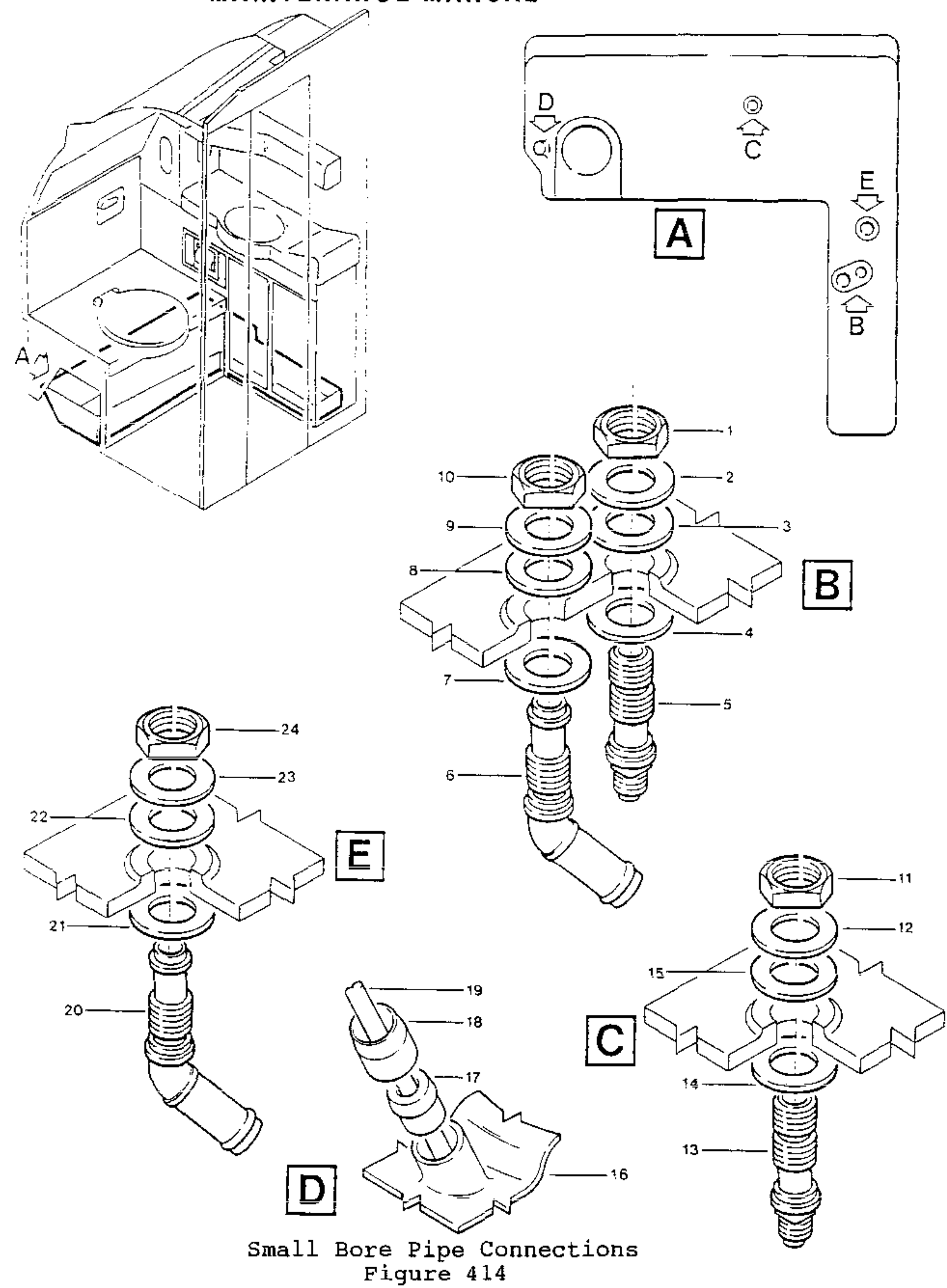
(b) Fit a new sealing ring (15), washer (12) and retaining nut (11) to the elbow (13) union above the floor. Do not tighten the nut.

(c) Hold the elbow connection (13) below the floor with a spanner. Torque-tighten the retaining nut (11) above the floor to between 107 and 117 lbf in. (1.21 to 1.32 mdaN).

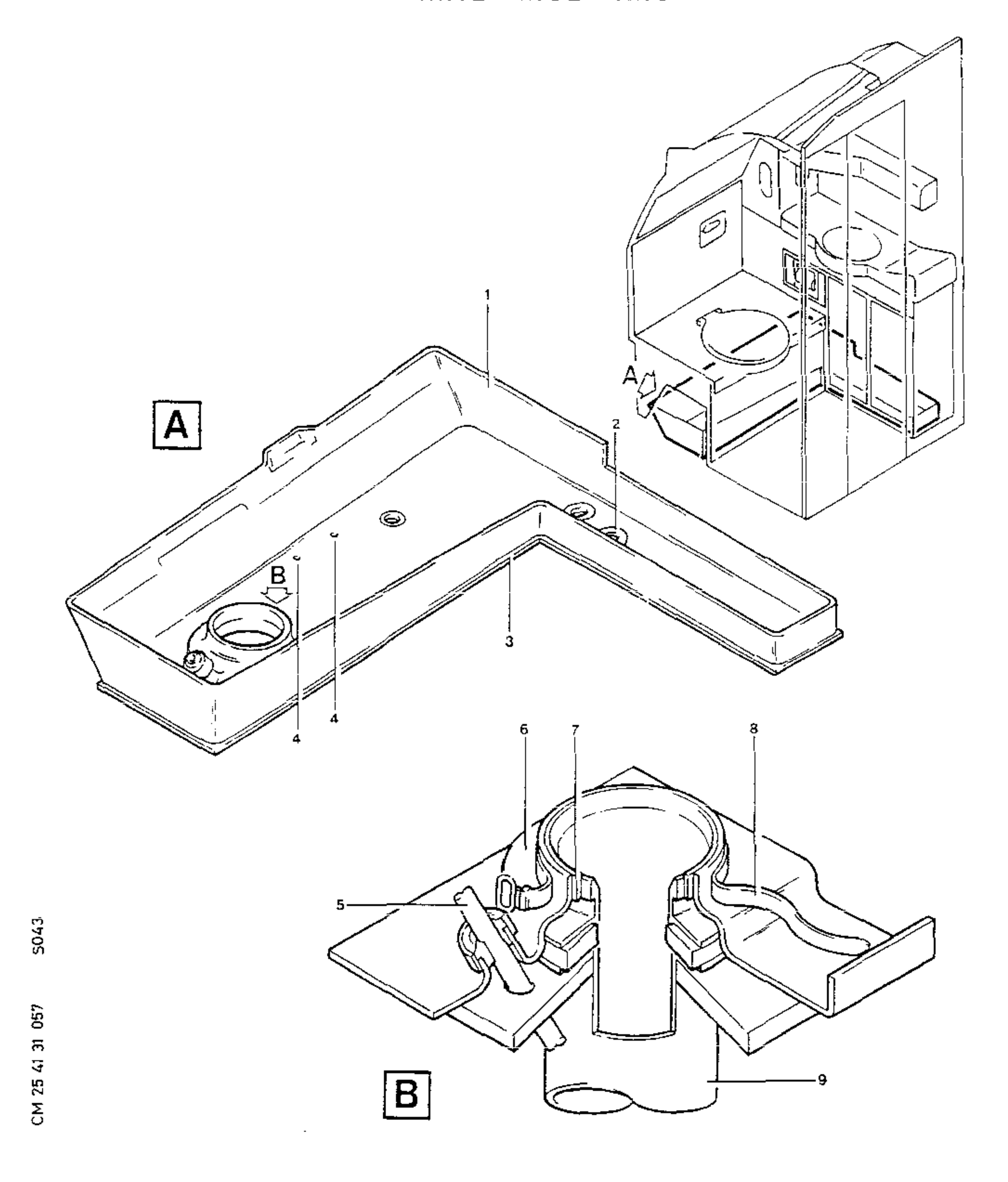
(3) Install the sink waste elbow floor connection.

(a) Remove the blanks, fit a washer (7) to the elbow union (6) and insert it through the appropriate hole in the floor from below.

(b) Fit a new sealing ring (8), washer (9) and retaining nut (10) to the elbow (6) above the floor. Do not tighten the nut.



Small Bore Pipe Connections
Figure 414



Outboard Drip Tray
Figure 415

(c) Fit an electrical bonding clip to the pipe at each side of the joint sleeve, and connect the clips with an electrical bonding lead in accordance with 20-27-11.

(d) Hold the elbow assembly (6) below the floor with a spanner. Torque-tighten the elbow retaining nut above the floor to between 645 and 655 lbf in (7.29 to 7.4 mdaN).

(4) Install the line drain floor connection.

(a) Remove the blanks, fit a washer (4) to the line drain floor connection (5) and insert it through the appropriate hole in the floor from below.

(b) Fit a new sealing ring (3), washer (2) and retaining nut (1) to the connection (5) above the floor.

(c) Hold the connection below the floor with a spanner and torque-tighten the retaining nut above the floor to between 307 and 317 lbf in (3.47 and 3.58 mdaN).

(5) Install the tank drain control cable and conduit (Ref. 38-31-15), Removal/Installation). Seal the control cable conduit to the drip tray.

(a) Fit the new grommet seal (17) around the conduit (19) and inside the drip tray flange (16).

(b) Fit the sleeve seal (18) over the grommet seal (17) and drip tray flange (16).

(c) Apply a bead of sealant RTV 102 to seal the sleeve, grommet seal and conduit.

C. Install Tank Mounting Brackets (Ref. Fig. 413)

(1) Position the tank mounting brackets (3) with new rubber washers (4) interposed between the brackets (3) and drip tray (5).

(2) Secure the mounting brackets (3) to the floor with washers (2) and bolts (1). Torque-tighten each bolt (1) to between 35 and 44 lbf in (0.40 and 0.50 mdaN).

(3) Encapsulate all floor mounting bolts (1) with sealant RTV 102.

D. Install Spigot Housings (Ref. Fig. 412)

(1) Support housing plates (2) and block (3) on aircraft structure (1) and secure with bolts (5) and washer (4).

E. Install LH Bulkhead/Main Toilet Unit. (Ref. Fig. 411)

(1) Position foot fittings (5) and locking plate (6) in seat track rails.

(2) Position LH bulkhead (7) on aircraft. Do not secure to aircraft bulkhead panel.

(3) Position main toilet unit (11) on aircraft.

(4) Mate spigot (13) on LH bulkhead (7) with aperture (12) on main toilet unit (11) and slide complete unit to final mounting location.

(5) Install bolts (1) and locking washers (2), in apertures (4) in fore and aft bulkhead (3).

(6) Mate bolts (1) with foot fitting (5) and locking plate (6), tighten sufficiently.

(7) Align bracket (10) on LH bulkhead (7) and main toilet unit (11) secure with screws (8) and washers (9).

(8) Install countersunk screw (14) in angle (15) on gangway bulkhead for support.

(9) Install bolt (21) and washer (20) in bracket (19) on LH bulkhead into the aircraft floor structure.

(10) From inside vanity unit install hexagonal bolt (18) and washer (17) in aperture (16) on fore and aft bulkhead.

(11) Seal foot fittings in seat track rails with a bead of sealant RTV 102.

F. Install Securing Spigots (Ref. Fig. 410)

(1) Locate spigot (7) and packer (6) on lintel of main toilet unit (5).

(2) Ensure spigot (7) is correctly located in spigot housing (4) on aircraft structure and secure with bolts (9) and washers (8).

(3) Install bolts (2) and washers (1) to secure LH bulkhead (3) to seat post on aircraft structure.

G. Install Electrical Services

(1) Connect receptacles of main cable loom on fore and aft bulkhead lintel to aircraft cable loom.

(2) Connect receptacle to solenoid valve in water compartment.

H. Install Fresh Air Supply Pipe (Ref. Fig. 409)

WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND SURROUNDINGS CLEAN AND FREE FROM CONTAMINATION.

OBSERVE THE OXYGEN SAFETY PRECAUTIONS DETAILED IN 35-00-00, SERVICING.

OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

(1) Release screws (9) and washers (10) and remove smoke detector cover (11).

(2) Release screws (13) and remove smoke detector (12) from dispenser assembly (14).

(3) Remove air freshener holder (7) at base of cosmetic rack cover (6).

(4) Release screws (8) and remove cosmetic rack cover (6).

(5) Release shoot bolt (15) and open cosmetic rack door (16).

NOTE: Ensure sufficient play in supply pipe to allow unrestricted flow.

(6) Attach supply pipe (2) to main supply with clip (1).

(7) Feed supply pipe (2) through cosmetic rack (5).

(8) Trim supply pipe (2) to required length and attach to gasper (17) with clip (18).

(9) Close and lock cosmetic rack door (16).

(10) Replace cosmetic rack cover (6) and secure with screws (8).

(11) Replace air freshener holder (7) on cosmetic rack (5).

(12) Support smoke detector (12) in dispenser assy (14) and secure with screws (13).

(13) Support smoke detector cover (11) secure with screws (9) and washers (10).

J. Install Water Supply Pipe (Ref. Fig. 408)

(1) Mate union (2) on fore and aft bulkhead water supply pipe (3) with transverse ceiling supply pipe (1).

(2) Tighten unions sufficiently to prevent any leakage.

K. Install Water Supply in Vanity Unit (Ref. Fig. 407)

CAUTION: TIGHTEN ALL PIPE UNIONS SUFFICIENTLY TO PREVENT ANY LEAKAGE.

(1) Install water heater (3) (Ref. 38-12-11).

(2) Remove protective plastic caps on inlet ports of solenoid valve.

(3) Install a 45° elbow (22) a washer (21) and O ring (19) to inlet ports on solenoid valve and outlet on top of water heater (3). Do not fully tighten locking nuts (20), so allowing the elbows to swivel for pipe union alignment.

(4) Connect water supply pipe assembly (1) to elbow (22) on top of solenoid, tighten union (23) and locking nut (20) sufficiently on elbow.

(5) Connect upper union to inlet port on faucet.

(6) Slide pipe assembly (12) into position in water heater compartment, couple unions (23) to 45° elbow (22).

(7) Tighten locking nut (20) on 45° elbow (22).

NOTE: Only install new O rings and grommets.

(8) Install tee union (14), a washer (16) and O ring (18) to base of water heater (3).

(9) Couple union (13) on pipe assembly (12) and tighten sufficiently to tee piece (14).

(10) Tighten locking nut (17) on tee piece (14).

(11) Couple hot water pipe (2) to 45° elbow (22), tighten locking nuts (20).

(12) Install line drain valve (7) (Ref. 38-12-15).

(a) Position the valve on the floor connection and secure the valve with the union nut. Torque tighten the nut to between 40 and 65 lbf in (0.45 and 0.73 mdaN).

(13) Position pipe assembly and couple union (4) to tee piece (14) and union (5) to line drain valve (7).

(14) Install union (10) into end of pipe assembly (9).

(15) Couple union (10) and pipe assembly (11) to supply pipe mounted on wall of fore and aft bulkhead.

(16) Couple union (6) to line drain valve (7) and tighten sufficiently.

(17) Install new grommet (8) around elbow on top of water heater (3) to seal aperture.

L. Install Pneumatic Flush Lines (Ref. Fig. 406)

CAUTION: TIGHTEN ALL UNIONS SUFFICIENTLY TO PREVENT ANY LEAKAGE.

(1) Install the toilet air flush valve (1) (Ref. 38-41-15).

(2) Install corner fitting (2) onto air flush valve (1).

(3) Couple air supply pipe (30) to corner fitting (2).

(4) Install union (4) into pipe assembly (3).

(5) Couple pipe assembly (5) to union (4) ensure bend faces aft and connect to tee piece (8).

(6) Connect pipe assembly (9) to forward connection on tee piece (8) and elbow (10).

(7) Install floor stub fitting (13) and corner fitting (12).

(8) Connect pipe assembly (11) to corner fitting (12) and elbow (10).

(9) Connect nut (7) on elbow (8) to air reservoir (6) on installation of toilet tank and toilet waste pipes (Ref. Removal/Installation of Toilet Waste Pipes Fig. 405).

M. Install Toilet Waste Pipes (Ref. Fig. 405)

CAUTION: TIGHTEN ALL WORM DRIVE CLIPS AND UNIONS SUFFICIENTLY TO PREVENT ANY LEAKAGE.

(1) Fit a joint sleeve (7) and two worm drive clips (6) on end of supply pipe (4).

(2) Position supply pipe (4) in water heater compartment ensuring 90° bend is located through aperture in side wall.

(3) Locate bottom of supply pipe (4) with floor stub pipe slide joint sleeve (7) into position and secure with worm drive clips (6).

(4) Fit a joint sleeve (9) and two worm drive clips (8) over end connection supply pipe (4).

(5) Fit a joint sleeve (14) over stub pipe (15) on air flush valve (1) and secure with worm drive clips (13).

(6) Slide supply pipe (2) end connections into joint sleeves (9) and (14).

(7) Fit a joint sleeve (11) over stub pipe (12) on air flush valve (1) and secure with worm drive clips (10).

(8) Slide sluice pipe assembly (3) into joint sleeve (11).

(9) Install toilet tank (5) (Ref. 38-31-11).

N. Install Sink Waste Water Pipes (Ref. Fig. 404)

CAUTION: TIGHTEN ALL WORM DRIVE CLIPS ON JOINT SLEEVES SUFFICIENTLY TO PREVENT ANY LEAKAGE.

(1) Install water overflow valve (3) (Ref. 38-31-18).

(2) Fit a joint sleeve (8) and two worm drive clips (6) onto sink overflow connection (1) and overflow valve connection (3).

(3) Ease waste pipe (5) into position, slide joint sleeves (8) over each end of pipe assembly (5), tighten worm drive clips (6).

(4) Slide sink waste pipe (4) into position.

(5) Fit a joint sleeve (9) and two worm drive clips (7) on each end of pipe assembly (4).

(6) Align sink waste pipe (4), slide joint sleeves (9) into position and tighten worm drive clips (7).

P. Install Electrical Services

(1) Connect cable loom on fore and aft bulkhead lintel to main aircraft cable loom.

(2) Connect electrical receptacle to solenoid in the water compartment.

Q. Install Drip Tray - Standing Area (Ref. Fig. 403)

CAUTION: IT IS IMPORTANT THAT THE HIGHEST STANDARD OF DRIP TRAY SEALING IS MAINTAINED TO MINIMIZE THE RISK OF POSSIBLE DAMAGE TO UNDERFLOOR EQUIPMENT IN THE EVENT OF FLUID SPILLAGE WITHIN THE TOILET AREA.

(1) Slide aft facing edge of drip tray (2) under vanity unit (1), carefully press drip tray (6) downwards mating with floor structure.

(2) Join and seal the joint between the outboard drip tray (8) and standing area drip tray (6) with a strip of waterproofed fabric sealing tape (3).

(3) Apply a bead of sealant (5) RTV 102 under the edge of the drip tray (6) at the doorway. Continue the bead along the drip tray top flange at the doorposts and LH bulkhead.

(4) Remove screw (7) from angle on gangway bulkhead.

(5) Position the floor threshold (4), secure with countersunk screws (7).

R. Install Compartment Doors (Ref. Fig. 402)

(1) Toilet Roll Holder

(a) Locate and slide hinge pins (2) of toilet roll holder (7) into hinge plates (3).

(b) Push toilet roll holder (7) backwards towards vanity unit (5), ensuring pinlatch (6) locks into bracket (4) located in the bottom right hand corner.

(2) Water Compartment Door

(a) Locate and slide hinge pins (14) of water compartment door (15) into hinge plates (13).

(b) Push door (15) back towards vanity unit (5).

(c) Locate bolt (16) in aperture on bracket (9).

(d) Hold door (15) in position, slide latch keep (9), upwards from inside the vanity unit to lock door.

(3) Trash Bin Door

(a) Install trash bin in vanity unit.

(b) Locate base of trash bin door studs (12).

(c) Push door backwards towards the vanity unit (5) ensuring latch (10) locks into strike plate (8).

S. Install Shrouds (Ref. Fig 401)

(1) Position front panel (4) on toilet tank, align dual lock strips and press firmly to secure.

(2) Locate top panel and toilet seat (5) on toilet tank and slide backwards into position.

(3) Position curved ceiling panel (1) aligning air aperture on lower edge. Press dual lock to secure panel in position.

(4) Position air vent panel (7) along lower edge of curved ceiling panel. Press dual lock to secure into position.

(5) Position outboard wall panel (6), connect flush mechanism to flush handle (3) (Ref. 38-41-15). Press dual lock to secure into position along upper and lower edges.

(6) Position upper ceiling panel (2). Press dual lock to secure panel.

T. Conclusion

(1) Install passenger seats (Ref. 25-20-00).

(2) Install toilet door (Ref. 52-51-00).

(3) Install toilet mirror (Ref. 25-41-12).

(4) Reset the circuit breakers previously tripped.

(5) Replenish the fresh water system in accordance with 38-11-00 Servicing.

(6) Test the toilet wash system (Ref. 38-12-00, Adjustment/Test).

(7) Charge the toilet tank with sanitary fluid (Ref. 12-16-38).

(8) Test the toilet tank (Ref. 38-31-11, Adjustment/Test).

(9) Test the toilet lighting (Ref. 33-22-00, Adjustment/ Test).

(10) Test the toilet signs (Ref. 33-25-00, Adjustment/Test).

(11) Test the call system (Ref. 33-27-00, Adjustment/Test).

(12) Test the toilet oxygen system (Ref. 35-21-15, Adjustment/ Test).

TOILET No.3 REMOVAL AND INSTALLATION

WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND SURROUNDS CLEAN AND FREE FROM CONTAMINATION.

OBSERVE THE OXYGEN SAFETY PRECAUTIONS DETAILED IN 35-00-00.

OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

Toilet No.3 is situated opposite No.2 toilet on the right hand side of the passenger compartment between stations 926-959.8.

To implement certain non-destructive testing, and maintenance procedures, the toilet compartment will need to be removed.

2. Equipment and Materials

DESCRIPTION	PART NO.
(a) Circuit breaker safety clips.	-
(b) Torque spanners 0-700 lbf in (0-8 mdaN).	-
(c) Water proofed fabric sealing tape 2 in (50mm) (Ref. 20-30-00).	-
(d) Sealant RTV 102.	-
(e) Sealant PR1422.	-
(f) General purposes cleaning solvent, BACM 302 (Ref. 20-30-00).	-
(g) Rubber suction pads (with handle).	-

3. Removal - Toilet Compartment, No.3

A. Preparation

(1) Drain the water system (Ref. 12-36-00).

(2) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
CTR LH TOILET WATER HTR SUP	14-216	M229	D17
TOILET MAIN LTS SUP	14-216	L985	C10
CABIN NIGHT LTS SUP	5-213	L455	D19
PA SUP	1-213	R139	K20
PASS CALL SUP	15-216	M78	A22
FASTEN S/BELT SUP	1-213	W191	L8
RAZOR OUTLET SUP	15-215	M211	G5

(3) Remove two rows of passenger seats (Ref. 25-00-00).

(4) Remove toilet door (Ref. 52-51-12).

(5) Remove all loose equipment and toiletries.

B. Remove Shrouds (Ref. Fig. 401)

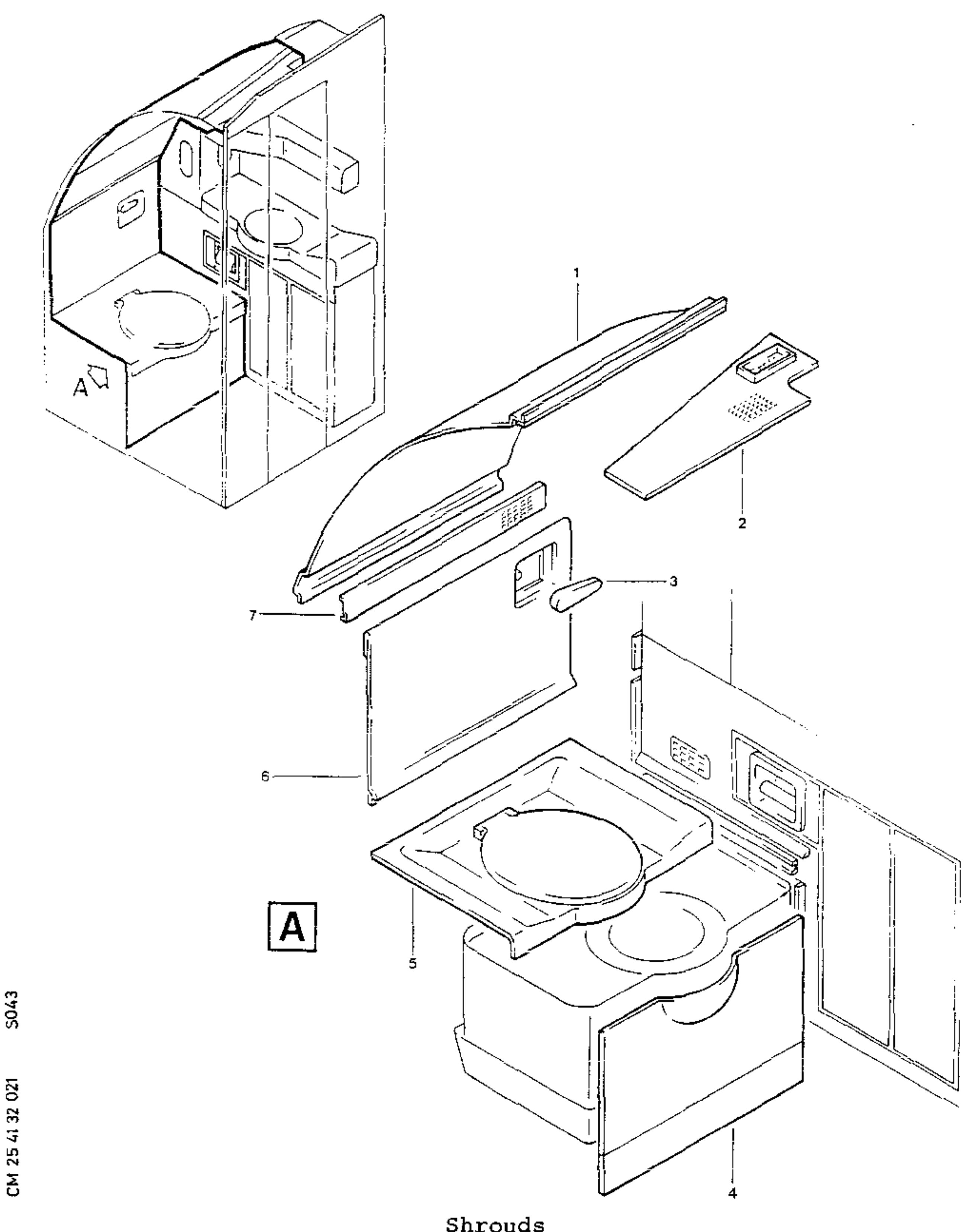
CAUTION: HANDLE ALL PANELS WITH CARE TO AVOID MARKING OR DAMAGING PANELS AND DECORATIVE COVERING.

(1) Grasp the edge of ceiling panel (2), pull panel downwards releasing dual lock.

(2) Disconnect flush mechanism to flush handle (3) (Ref. 38-41-15). Pull outboard panel (6) edges firmly, releasing dual lock.

(3) Pull edges firmly on air vent panel (7) releasing dual lock.

(4) Pull lower edges firmly on ceiling panel (1), pull upper edges firmly releasing dual lock.



Shrouds
Figure 401

(5) Slide top panel and toilet seat (5) inboard and remove.

(6) Pull front panel (4) side edges firmly to release dual lock.

C. Remove Compartment Doors (Ref. Fig. 402)

(1) Trash Bin Door

(a) Pull latch (10) outwards to release from strike plate (8) on vanity unit.

(b) Once unlatched lift the door (11) upwards to clear the securing studs (12) on the base.

(c) Remove trash bin and store in a safe place.

(2) Water Compartment Door

(a) From inside trash bin compartment against side wall, pull latch keep (9) downwards to release bolt (16).

(b) Swing door open sufficiently to lift door upwards to release hinge pins (14) from hinge plates (13).

(3) Toilet Roll Holder

(a) Push bottom right hand corner of toilet roll holder (7), to release pin latch (6) from bracket (4).

(b) Swing toilet roll holder (7) open sufficiently to lift assembly upwards releasing hinge pins (2) from hinge plates (3).

(c) Lift toilet roll holder (7) away from vanity unit (5).

D. Remove Standing Area Drip Tray (Ref. Fig. 403)

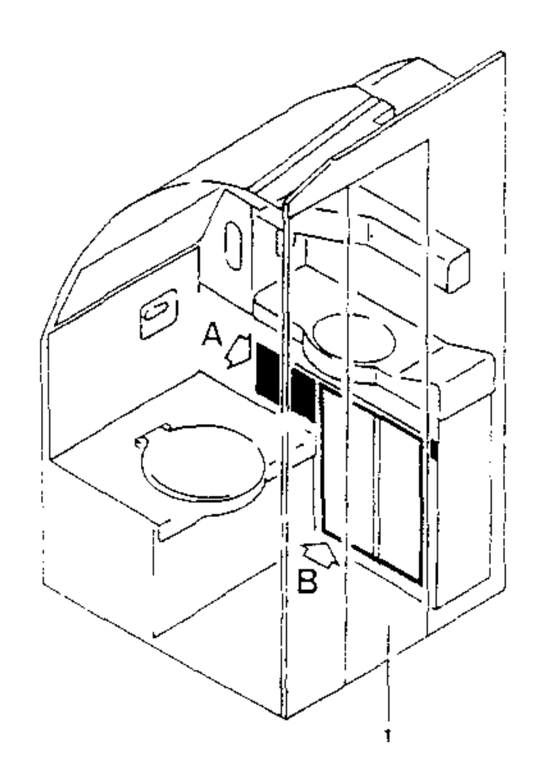
(1) Remove countersunk screws (7) from floor threshold (4).

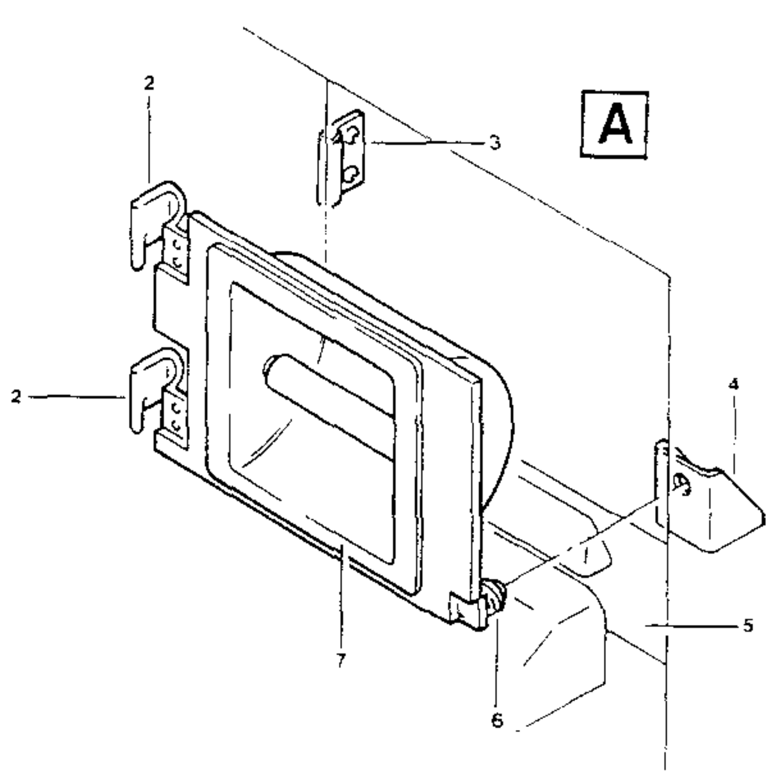
(2) Re-install screw (7) one only into angle to support base of gangway bulkhead.

(3) Cut the bead of sealant (5) between the floor and drip tray.

(4) Carefully cut waterproofed fabric sealing tape (3) along drip tray flange joining outboard drip tray (8).

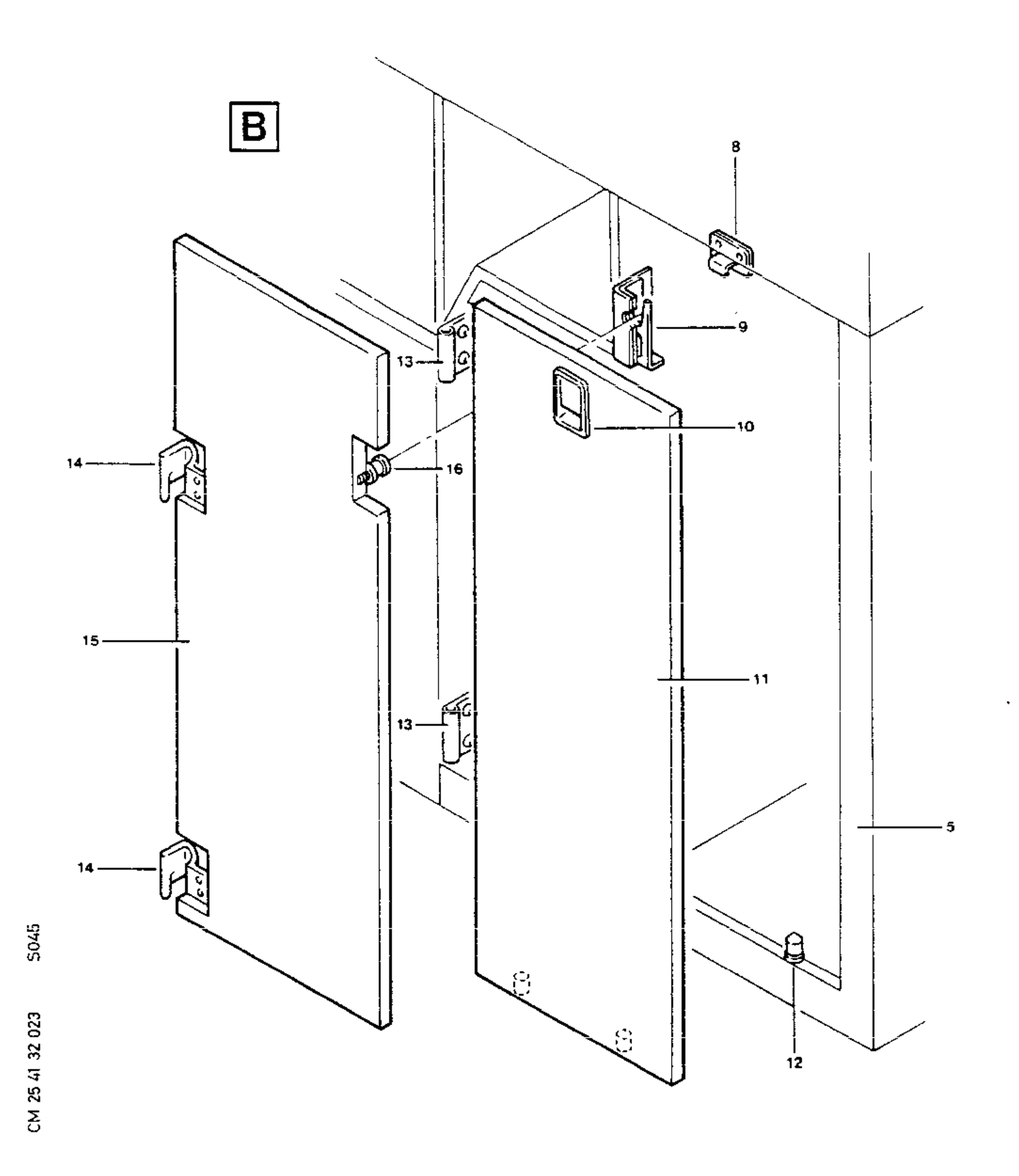
(5) Lift drip tray (2) from the forward facing edge, and slide clear of vanity unit (1).





CM 25 41 32 022 S044

Compartment Doors
Figure 402
(Sheet 1 of 2)



Compartment Doors
Figure 402
(Sheet 2 of 2)

(6) Clean both the floor area and drip tray from sealant using cleaning solvent BACM 302.

E. Remove Sink Waste Water Pipes (Ref. Fig. 404)

(1) Slacken worm drive clips (7) and slide joint sleeves (9) free from sink waste connection (2) and water overflow valve connection (3).

(2) Ease sink waste pipe (4) from position and remove from compartment.

(3) Slacken worm drive clips (6) slide joint sleeves (8) free form sink overflow connection (1) and water overflow valve connection (3).

(4) Ease waste pipe (5) from position and remove from compartment.

(5) Remove water overflow valve (3) (Ref. 38-31-18).

F. Remove Toilet Waste Pipes (Ref. Fig. 405)

(1) Disconnect sluice pipe assembly (3) and water supply pipe (2) from top of toilet tank (5) (Ref. 38-31-11).

(2) Disconnect pneumatic flush pipe from air reservoir tank (Ref. Removal/Installation Pneumatic Flush Lines, Figure 405).

(3) Remove toilet tank (5) (Ref. 38-31-11).

(4) Slacken worm drive clips (10) and slide sluice pipe assembly (3) and joint sleeve (11) clear of stub pipe (12) on air flush valve (1).

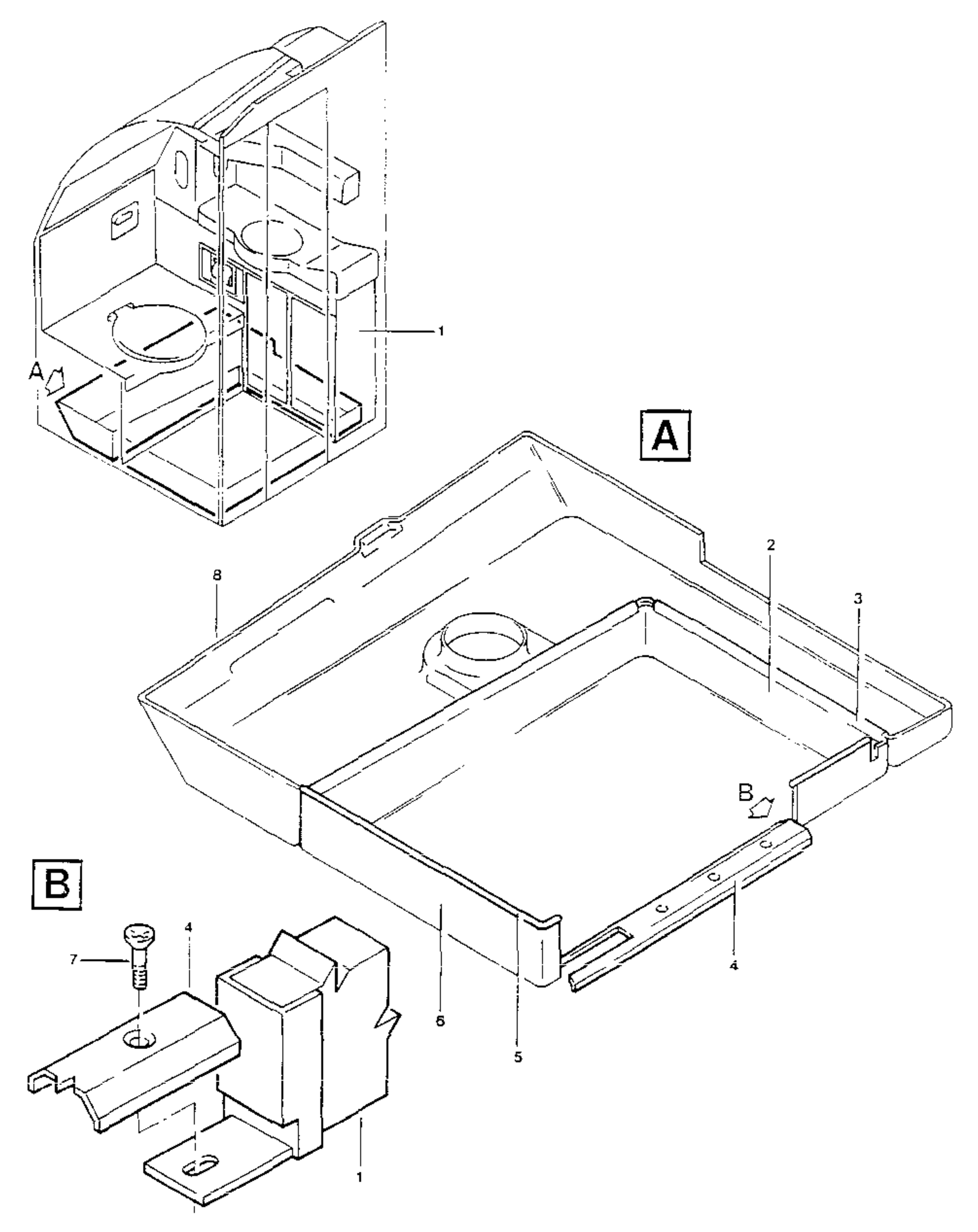
(5) Slacken worm drive clips (13) and slide joint sleeve (14) down pipe assembly (2) clear of stub pipe (15) on air flush valve (1).

(6) Slacken worm drive clips (8) slide supply pipe (2) and joint sleeve (9) free from supply pipe (4) in water heater compartment.

(7) Slacken worm drive clips (6) and slide joint sleeve (7) and supply pipe (4) free from floor stub pipe. Remove supply pipe (4) from water heater compartment.

G. Remove Pneumatic Flush Lines (Ref. Fig. 406)

(1) Unscrew nut (7) and disconnect lower tee-piece (8) from air reservoir (6) on side of toilet tank.



Drip Tray Standing Area
Figure 403

(2) Remove toilet tank (Ref. 38-31-11).

(3) Disconnect pipe assembly (3) from corner fitting (2) and union (4).

(4) Disconnect and remove corner fitting (2) from air flush valve (1).

(5) Unscrew union (4) from pipe assembly (5).

(6) Disconnect pipe assembly (5) from tee-piece (8).

(7) Disconnect pipe assembly (9) from tee-piece (8) and remove from elbow (10).

(8) Disconnect end fitting (12) from floor stub fitting (13) remove and uncouple pipe assembly (11) and elbow (8).

(9) Disconnect and remove air flush valve (1) (Ref. 38-41-15).

H. Remove Water Supply in Vanity Unit (Ref. Fig. 407)

(1) Remove grommet (8) from aperture around top connection on water heater (3).

(2) Slacken end fitting (9) and (6), slide pipe assembly (11) out from vanity unit.

(3) Unscrew and remove union (10).

(4) Slacken union (5) on line drain valve (7) and union (15) on tee piece (14).

(5) Slide pipe assembly (4) out from water heater compartment.

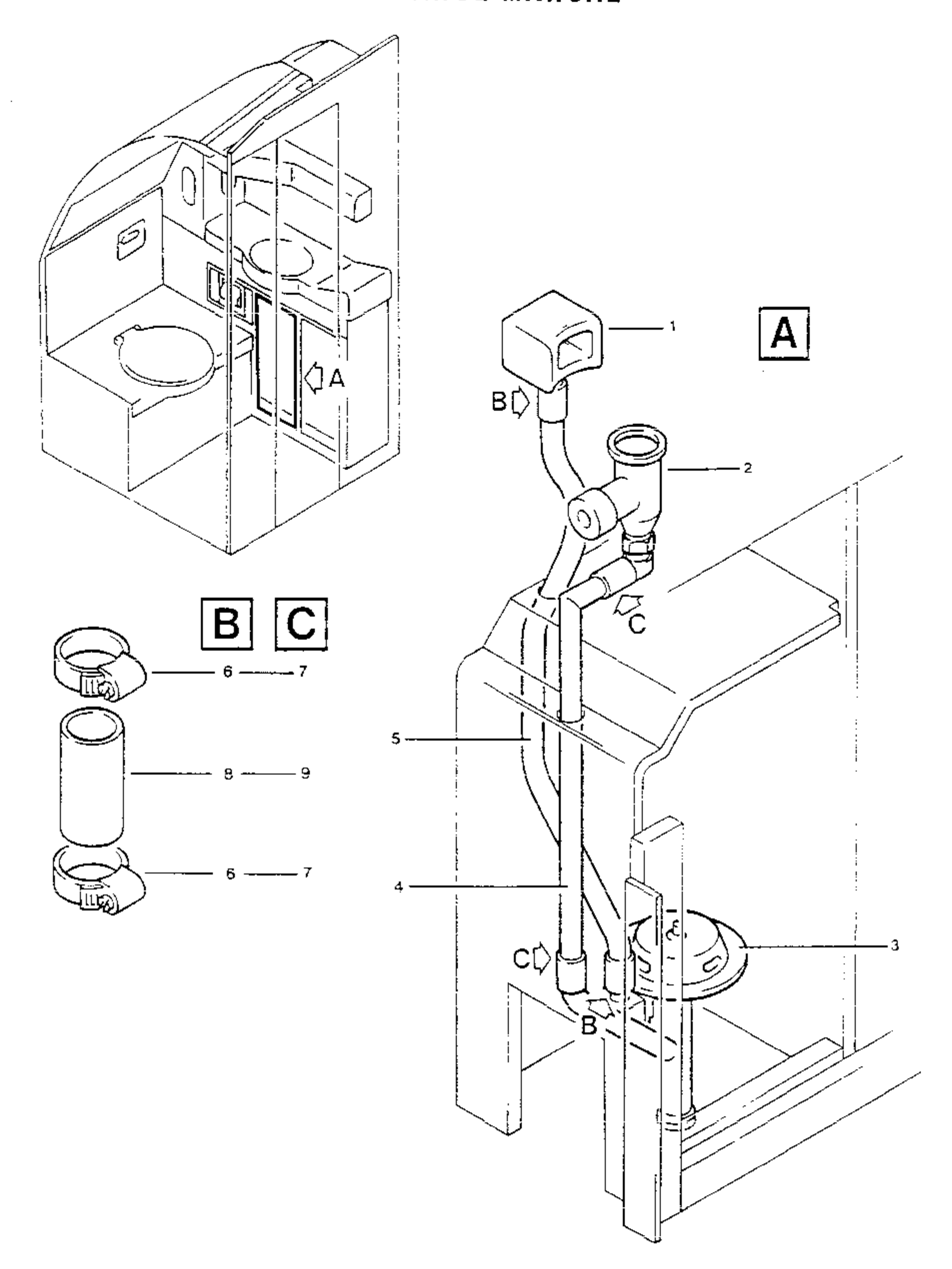
(6) Unscrew union nut on floor and remove line drain valve (7).

(7) Unscrew unions (22) on hot water supply pipe (2) and remove.

(8) Disconnect union (13) from tee-piece (14) and union (23) on solenoid, slide pipe assembly (12) out of water heater compartment.

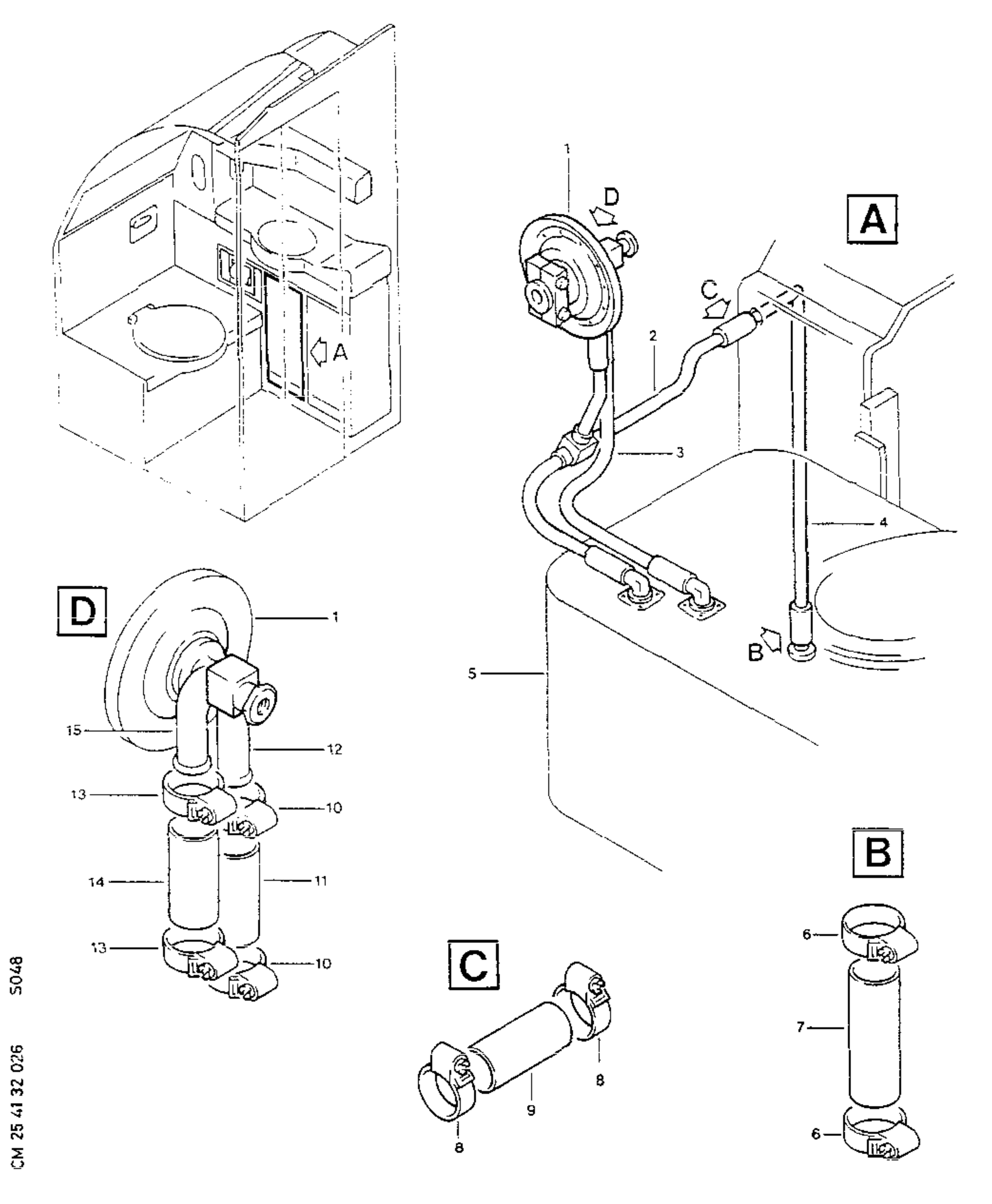
(9) Unscrew unions (23) on water supply pipe (1) from solenoid valve to faucet and remove.

(10) Unscrew locking nuts (20) on 45° elbows (22) fully to remove washers (21) and O ring (20) from top of water heater and solenoid valve.



CM 25 41 32 025 S047

Sink Waste Water Pipes
Figure 404



Toilet Waste Pipes
Figure 405

(11) Unscrew locking nut (17) fully on base of water heater (3), unscrew tee piece (14) and remove with washer (16) and O ring (18).

(12) Remove water heater (3) (Ref. 38-12-11).

(13) Cover inlet ports on solenoid valve with plastic protective caps.

J. Remove Water Supply Pipe (Ref. Fig. 408)

(1) Open access flap on gangway bulkhead and remove circlip (8) and remove control lever (9).

(2) Remove screws (6) and washers (5) from speaker bracket (7) and allow to hang freely on cable loom.

(3) Disconnect water supply pipe (10) on fore and aft bulkhead from isolation valve (3).

(4) Disconnect ceiling supply pipe (4) from isolation valve (3).

(5) Disconnect supply pipe (1) to rear galley from isolation valve (3).

(6) Disconnect supply pipe (2) from toilet No.1.

(7) Secure speaker bracket (7) with screws (6) and washers (5) to lintel.

K. Remove Fresh Air Supply Pipe (Ref. Fig. 409)

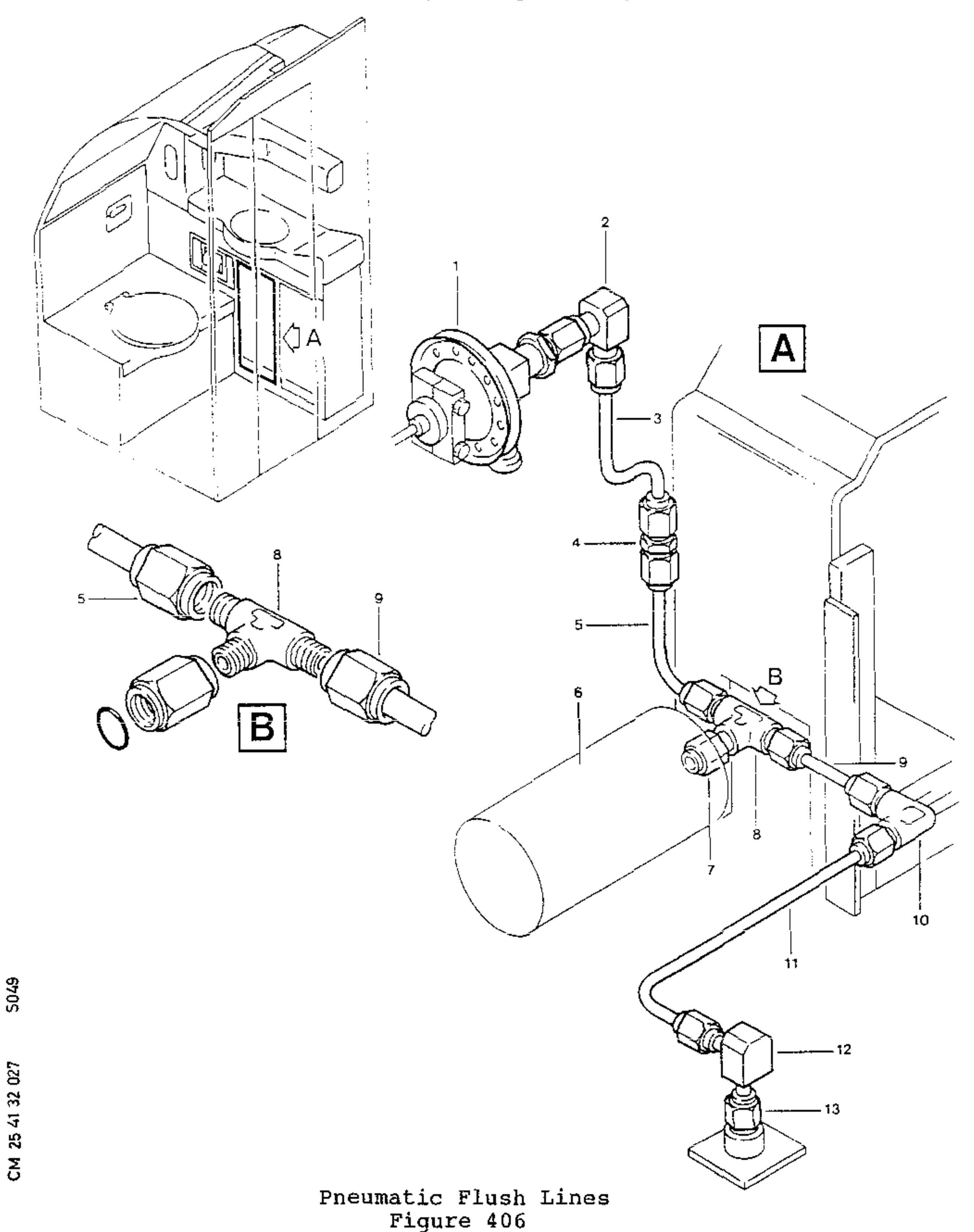
WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND SURROUNDINGS CLEAN AND FREE FROM CONTAMINATION.

OBSERVE THE OXYGEN SAFETY PRECAUTIONS DETAILED IN 35-00-00, SERVICING.

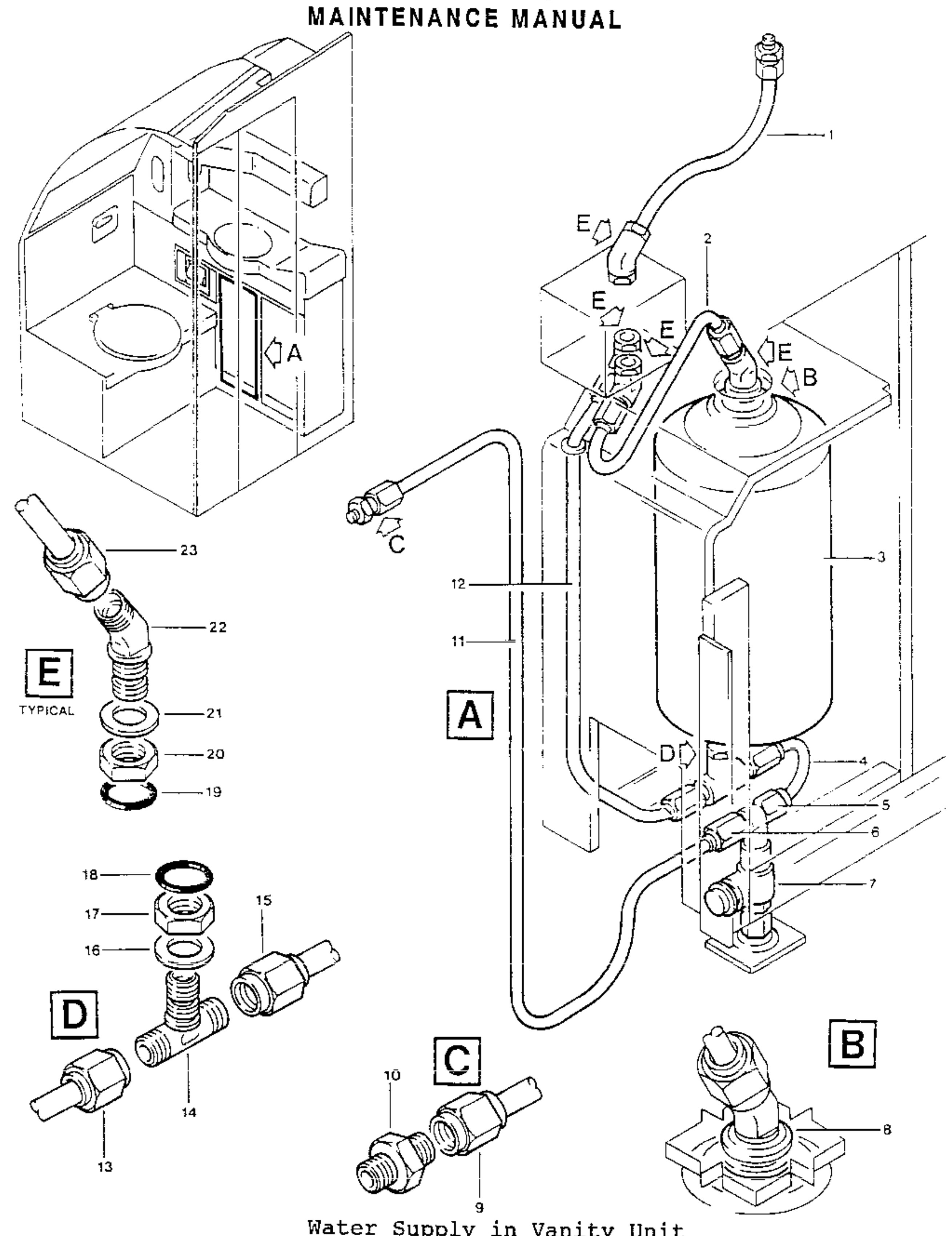
(1) Release screws (9) and washers (10) and remove smoke detector cover (11). Store in a safe place.

(2) Release screws (13) and remove smoke detector (12) from dispenser assembly (14). Store in a safe place.

(3) Remove air freshener holder (7) at base of cosmetic rack (6).



Pneumatic Flush Lines
Figure 406



Water Supply in Vanity Unit
Figure 407

(4) Release screws (8) and remove cosmetic rack cover (6).

(5) Release shoot bolt (15) and open cosmetic rack door (16).

(6) Slacken clip (18) and gently slide supply pipe (2) free of gasper (17).

(7) Slacken clip (1) and gently slide supply pipe (2) free from aircraft supply in ceiling.

(8) Feed supply pipe (2) through apertures in cosmetic rack and remove from compartment.

(9) Close and lock cosmetic rack door (16).

(10) Replace cosmetic rack cover (6) with screws (8).

(11) Slide air freshener (7) back into position on cosmetic rack (5).

L. Remove Electrical Services

(1) Disconnect electrical receptacle from solenoid valve in water compartment.

(2) Disconnect main cable loom receptacle on fore and aft bulkhead lintel, from aircraft cable loom.

M. Remove Securing Spigots (Ref. Fig. 410)

(1) Remove countersunk screws (1) and washers (2) from Main Toilet Unit (3) mounting locations on seat post.

(2) Remove bolts (9) and washers (8) from spigot (7) on the main toilet unit (5).

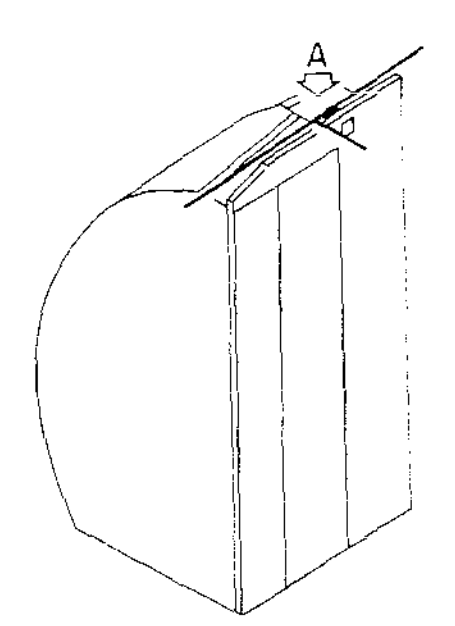
(3) Release spigot (7) and packer (6) from spigot housing (4) and remove.

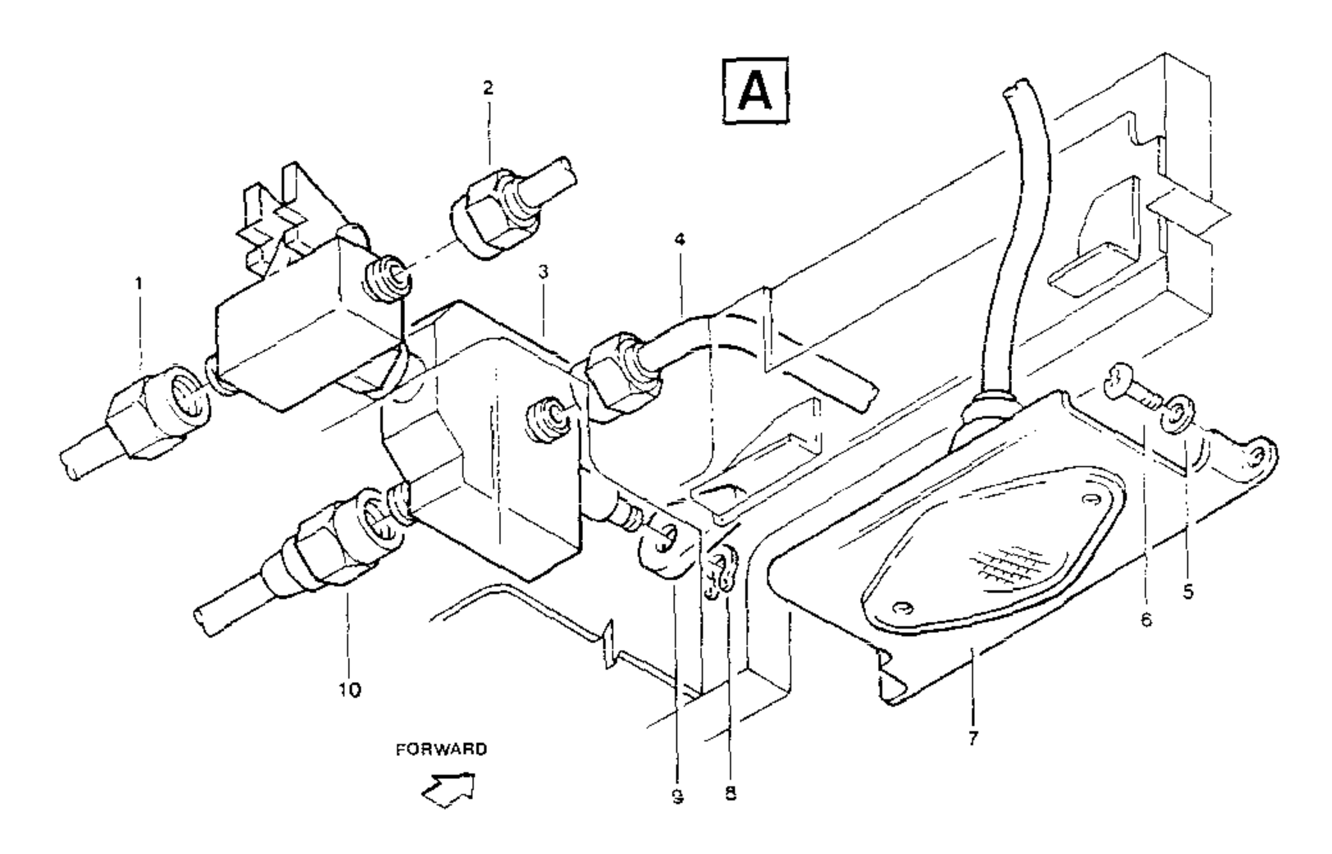
N. Remove LH Bulkhead/Main Toilet Unit (Ref. Fig. 411)

(1) Remove hexagonal bolt (1) and washer (2) in aperture (4) on fore and aft bulkhead (3). Access is obtained from inside vanity unit.

(2) Remove bolt (21) and washer (20) from bracket (19) on LH bulkhead.

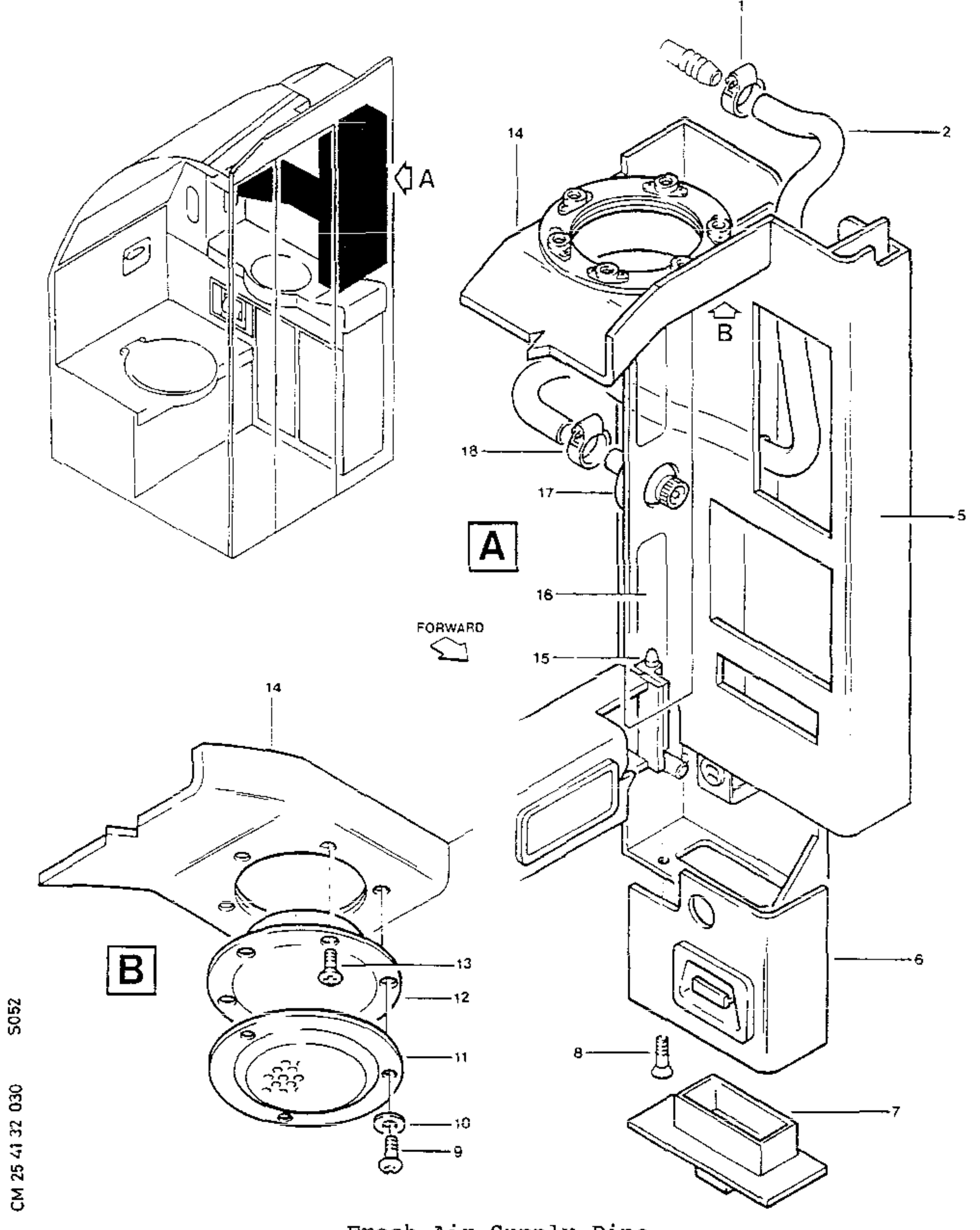
(3) Remove countersunk screw (14) from angle (15) on gangway bulkhead (11).





CM 25 41 32 029 5051

Water Supply Pipes
Figure 408



Fresh Air Supply Pipe
Figure 409

(4) Remove screws (8) and washers (9) from bracket (10) on LH bulkhead (7) and main toilet unit (11).

(5) Remove bolts (18) and locking washers (17) from apertures (16) on fore and aft bulkhead.

(6) Ease LH bulkhead (7) and main toilet unit (11) apart with care, disconnect spigot (13) from aperture (12) on the lintel.

(7) Slide LH bulkhead (7) from location and remove.

(8) Slide main toilet (11) from location, lift clear of drip tray and remove.

(9) Strip away sealant from foot fittings in seat track rails and remove locking plate (6) and foot fittings (5).

(10) Clean fittings thoroughly with cleaning solvent BACM 302 (Ref. 20-30-00).

P. Remove Spigot Housings (Ref. Fig. 412)

(1) Remove bolts (5) and washers (4) releasing block (3) and housing plates (2) from aircraft structure (1).

Q. Remove Tank Mounting Brackets (Ref. Fig. 413)

(1) Remove sealant from floor mounting bolts (1).

(2) Remove bolts (1) and washers (2) from mounting brackets (3).

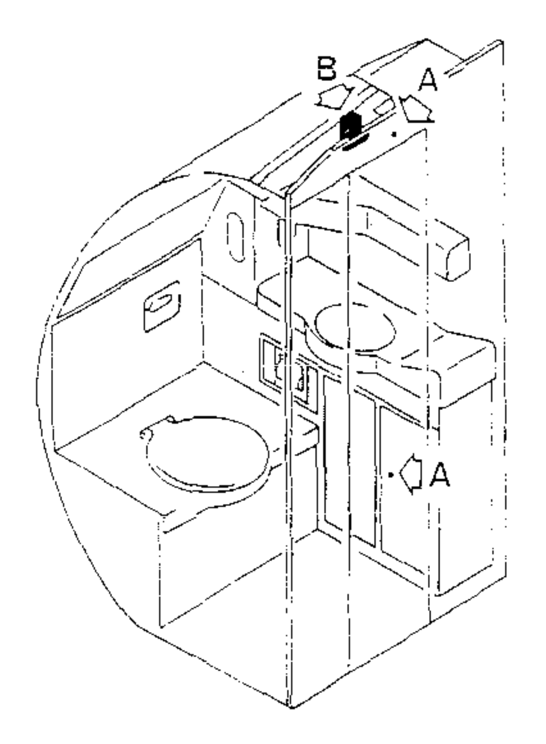
(3) Remove mounting brackets (3) and rubber washer (4) from drip tray (5).

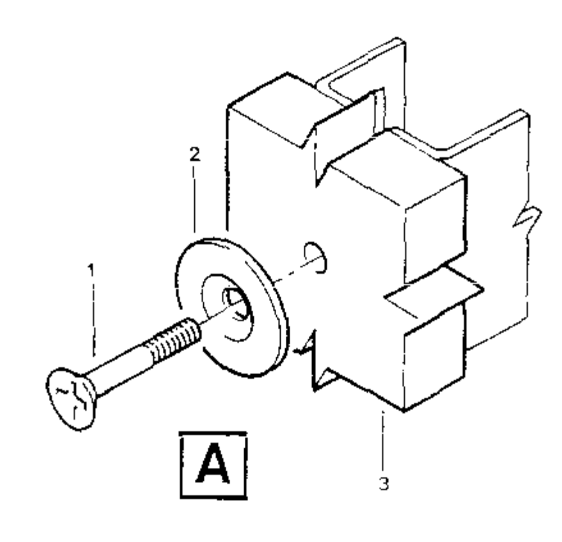
R. Remove Small Bore Pipe Connection on Floor (Ref. Fig. 414)

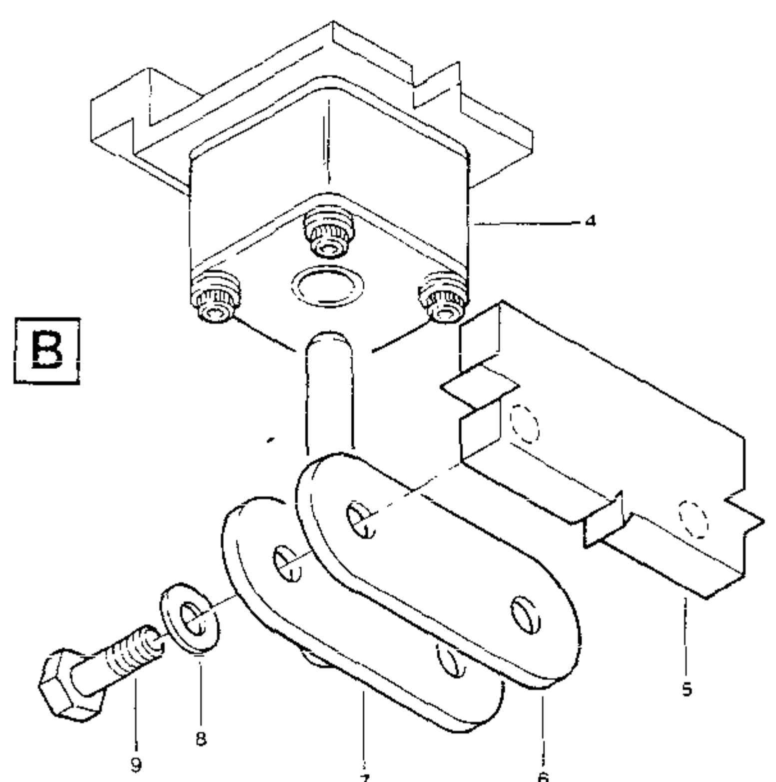
NOTE: To remove the drip tray, waste, water and air pipe floor connections must be removed. An assistant is required to hold the connection below the floor with a suitable spanner to prevent the assembly from turning when removing the retaining nut. Access below the floor is gained through access panel 123 VS in the lower baggage compartment.

Remove all sealant from floor connections, after removal thoroughly clean in cleaning solvent BACM 302.

(1) Remove the tank drain control cable (19) and conduit (Ref. 38-31-15).







CM 25 41 32 034 S053

Securing Spigots
Figure 410

(a) Remove the sealant, the sleeve seal (18) and the grommet seal (17) around the tank drain control cable conduit (19) at the inlet on the drip tray (16).

(b) Slide out and remove tank drain control cable and conduit.

(2) Remove line drain floor connections.

(a) Below the floor restrain floor connection (5) from turning, unlock and remove retaining nut (1), washer (2) and sealing ring (3).

(b) Withdraw the floor connection (5) and washer (4) from below the floor.

(c) Fit blanks in appropriate hole.

(3) Remove sink waste floor connection.

(a) Remove electrical bonding clips in accordance with 20-27-11.

(b) Below the floor restrain floor connection (6) from turning, unlock and remove retaining nut (10), washer (9) and sealing ring (8).

(c) Withdraw the floor connection (6) and washer (7) from below the floor.

(d) Fit blanks in appropriate hole.

(4) Remove air elbow floor connection.

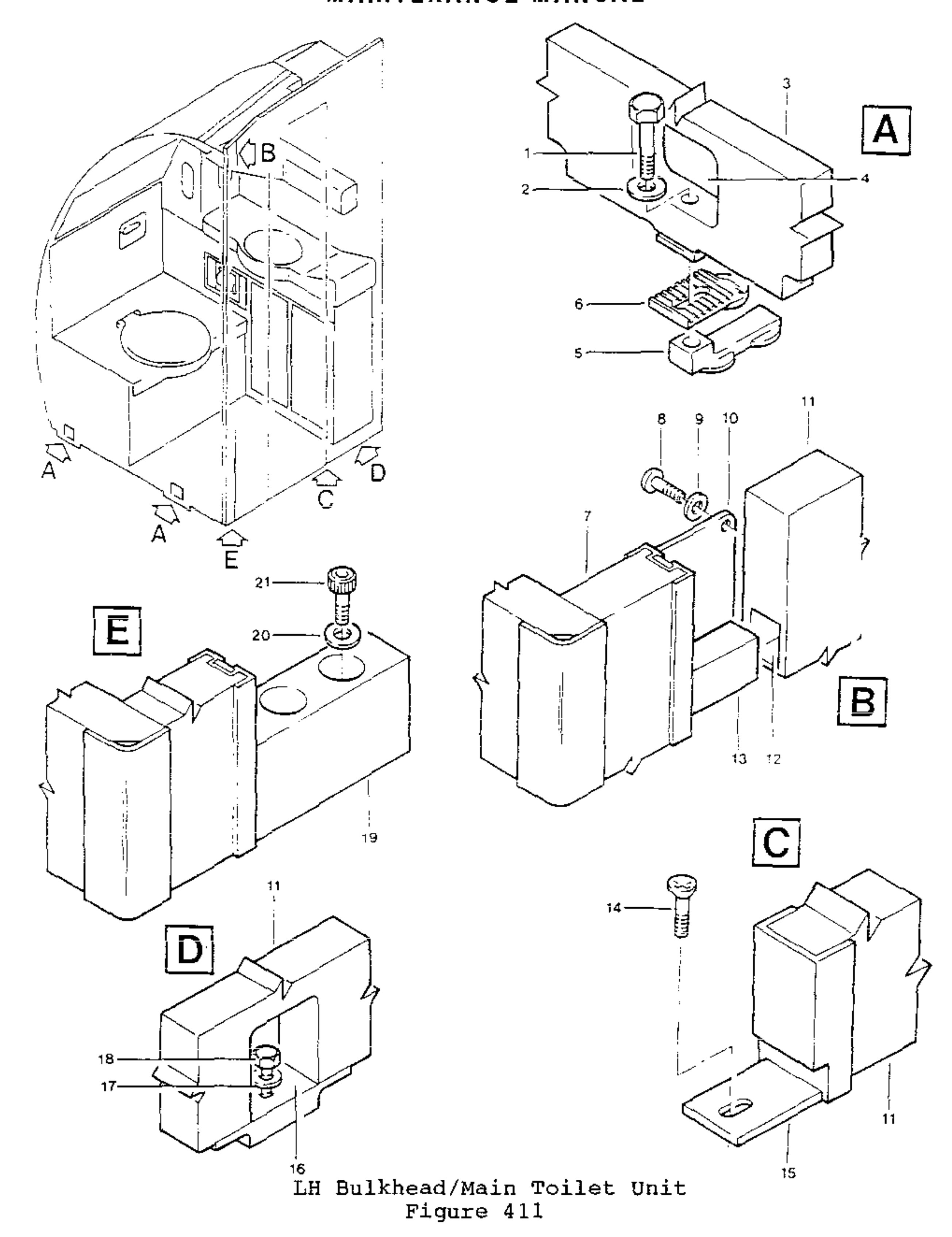
(a) Below the floor restrain connection (13) from turning, unlock and remove retaining nut (11) washer (12) and sealing ring (15).

(b) Withdraw the floor connection (13) and washer (14) from below the floor.

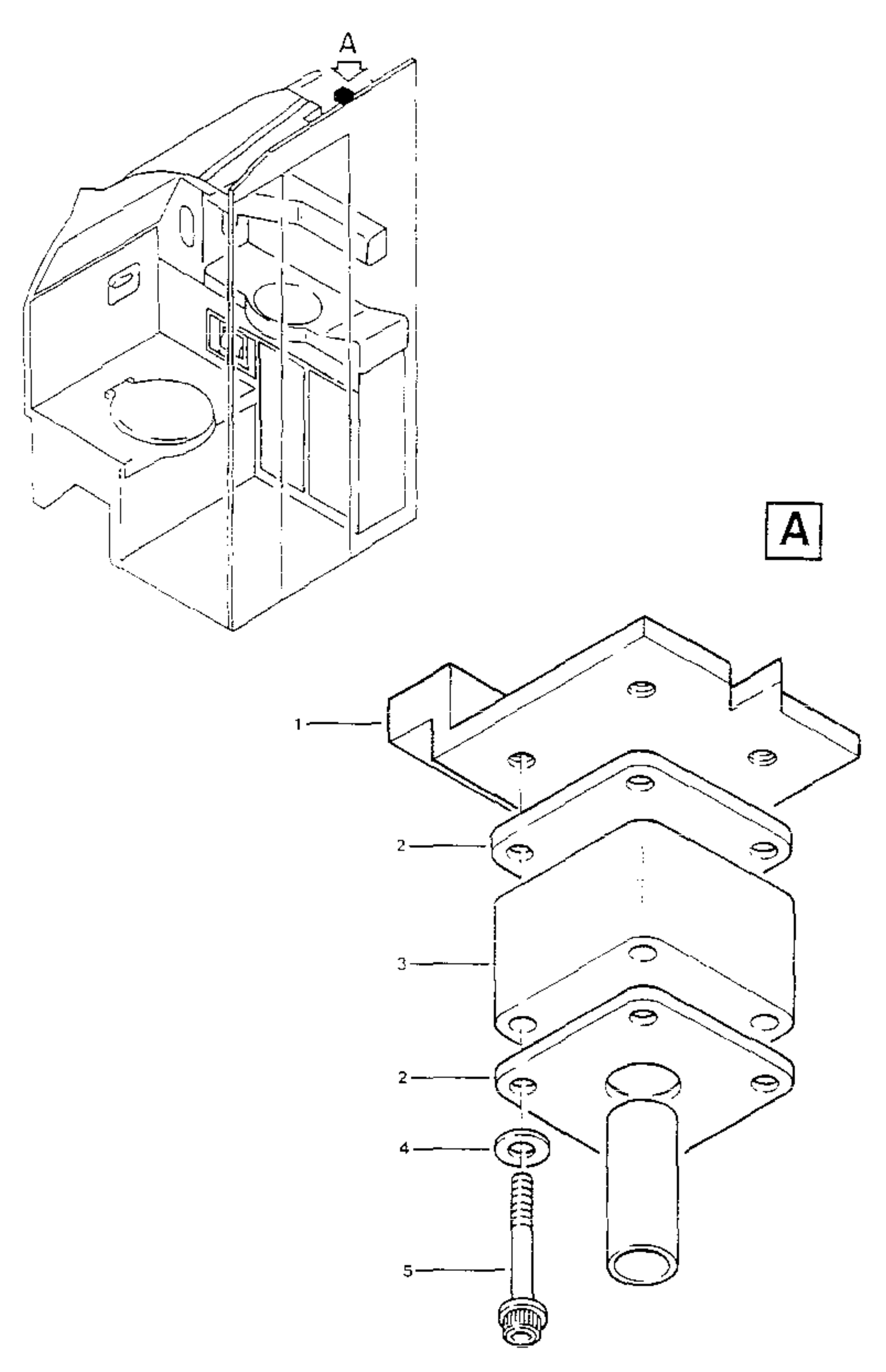
(c) Fit blanks in appropriate hole.

(5) Remove sluice and charge floor connection.

(a) Remove electrical bonding clips from pipe below the floor in accordance with 20-27-11.



LH Bulkhead/Main Toilet Unit
Figure 411



Spigot Housing
Figure 412

(b) Below the floor restrain connection (20) from turning, unlock and remove retaining nut (24) washer (23) and sealing ring (22) from connection above floor.

(c) Withdraw the floor connection (20) and washer (21) from below the floor.

(d) Fit blanks in appropriate hole.

S. Remove Outboard Drip Tray (Ref. Fig. 415)

(1) Remove the tie-wrap (8) securing the drip tray flange (6) to the toilet tank drain pipe (9). Carefully sever the seal made by the bead of sealant (7).

(2) Strip the bead of sealant (3) from around the edge of drip tray (2), ease away drip tray (2) from the floor and tank drain pipe (9) and teleflex control cable (5).

(3) Thoroughly clean old sealant from all surfaces with cleaning solvent, BACM 302.

4. Installation of Toilet Compartment, No.3

A. Installation of Outboard Drip Tray (Ref. Fig. 415)

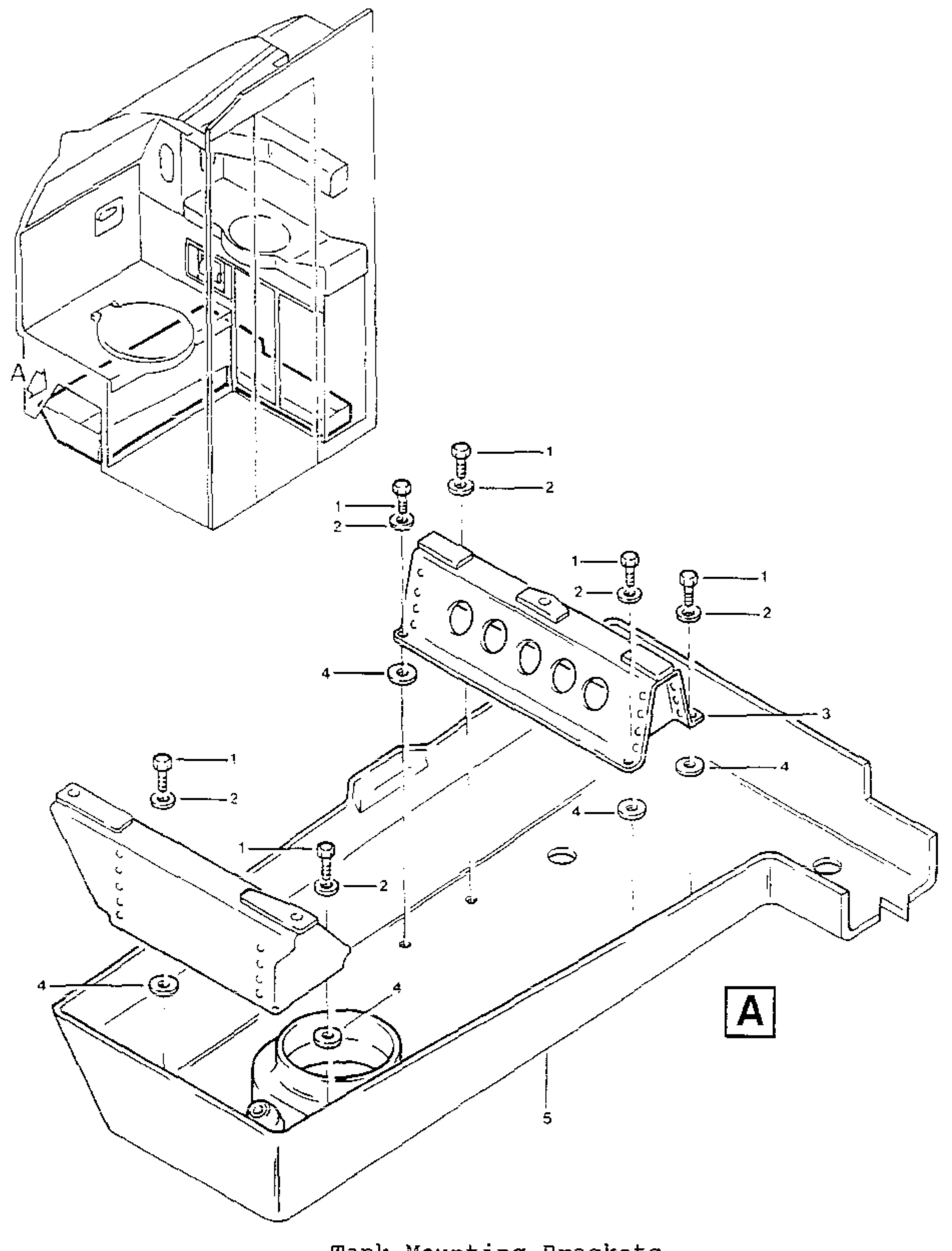
CAUTION: THE HIGHEST STANDARD OF DRIP TRAY SEALING MUST BE MAINTAINED TO MINIMIZE THE RISK OF POSSIBLE DAMAGE TO THE UNDERFLOOR EQUIPMENT AND STRUCTURE IN THE EVENT OF FLUID SPILLAGE WITHIN THE TOILET UNIT.

Note: Remove water system control lever. (Ref. Removal/ Installation of Water Supply Pipes Figure 408) before proceeding with toilet compartment installation.

(1) Fit the drip tray (2) over the toilet drain pipe (9) and the teleflex control cable (5). Align the holes (1) for the pipe stub and the tank mounting bracket bolts (4). Press firmly over the drip tray surface.

(2) Seal around edge of drip tray (2) with a bead of sealant RTV 102 (3).

(3) Seal the drip tray (2) to the toilet tank drain pipe (9) by applying a bead of sealant (7) RTV 102 at the lip between the drip tray flange (6) and the drain pipe (9). Secure the drip tray flange (6) to the pipe (9) with a tie-wrap (8).



Tank Mounting Brackets
Figure 413

B. Install Small-Bore Pipe Connections On floor (Ref. Fig. 414)

NOTE: An assistant is required to hold the connections below the floor, with a suitable spanner, to prevent the assembly from turning when the retaining nut is tightened. Access to the area below the floor is gained through access panel 132 VS through the lower baggage compartment.

Assemble pipes and couplings in accordance with 20-23-11 and 20-23-12.
Apply a bead of sealant RTV 102 around retaining nuts and drip tray on all pipe connections after torque tightening.

(1) Install sluice and charge floor connection.

(a) Remove the blanks from appropriate hole, fit a new washer (21) to the floor connection (20) and insert the connection through the hole in the floor, from below.

(b) Above the floor fit a new sealing ring (22), washer (23) and retaining nut (24). Do not tighten.

(c) Fit an electrical bonding clip to the pipe at each side of the joint sleeve and connect clips in accordance with 20-27-11.

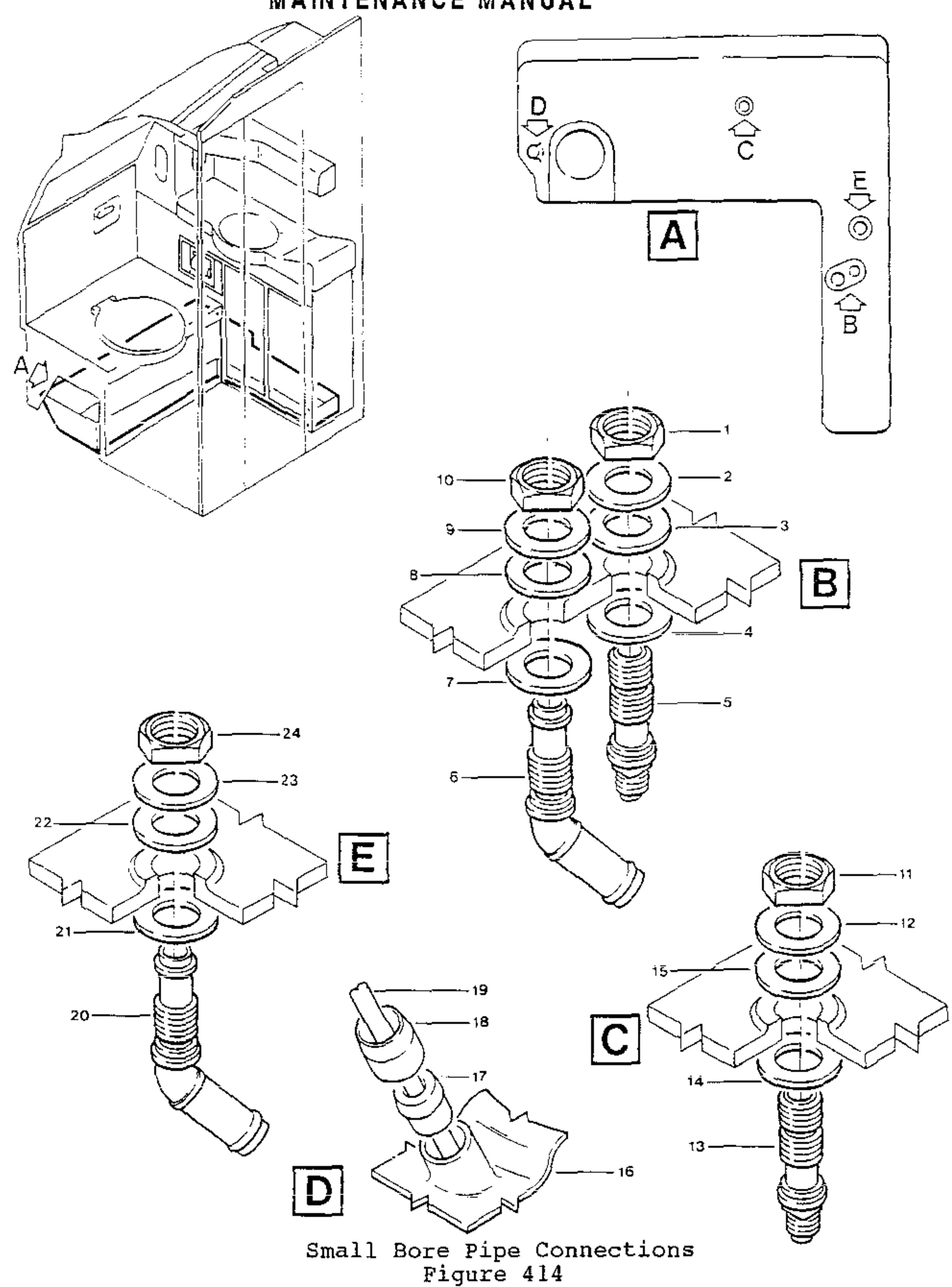
(d) Hold elbow assembly below the floor, torque-tighten the elbow retaining nut (24), above the floor to between 645 and 655 lbf in (7.29 to 7.4 mdaN).

(2) Install the air elbow floor connection.

(a) Remove the blanks, fit a washer (14) to the elbow union (13) and insert it through the appropriate hole in the floor from below.

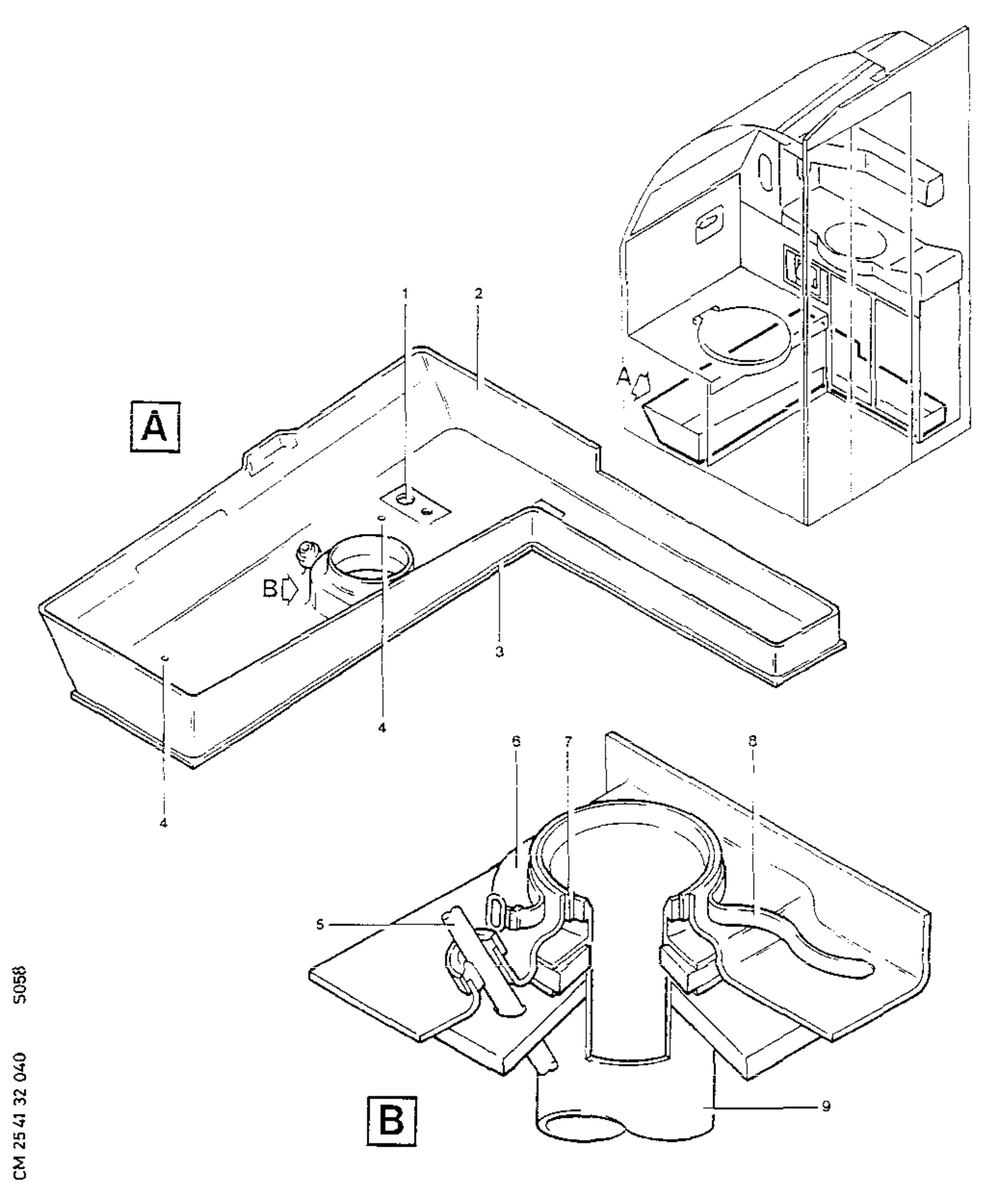
(b) Fit a new sealing ring (15), washer (12) and retaining nut (11) to the elbow union (13) above the floor. Do not tighten the nut.

(c) Hold the elbow connection (13) below the floor with a spanner. Torque-tighten the retaining nut (11) above the floor to between 107 and 117 lbf ins (1.21 to 1.32 mdaN).



Small Bore Pipe Connections
Figure 414

CM 25 41 32 039 S057



Outboard Drip Tray
Figure 415

(3) Install the sink waste elbow floor connection.

(a) Remove the blanks, fit a washer (7) to the elbow union (6) and insert it through the appropriate hole in the floor from below.

(b) Fit a new sealing ring (8), washer (9) and retaining nut (10) to the elbow (6) above the floor. Do not tighten the nut.

(c) Fit an electrical bonding clip to the pipe at each side of the joint sleeve, and connect the clips with an electrical bonding lead in accordance with 20-27-11.

(d) Hold the elbow assembly (6) below the floor with a spanner. Torque-tighten the elbow retaining nut above the floor to between 645 and 655 lbf in (7.29 to 7.4 mdaN).

(4) Install the line drain floor connection.

(a) Remove the blanks, fit a washer (4) to the line drain floor connection (5) and insert it through the appropriate hole in the floor from below.

(b) Fit a new sealing ring (3), washer (2) and retaining nut (1) to the connection above the floor.

(c) Hold the connection below the floor with a spanner and torque-tighten the retaining nut above the floor to between 307 to 317 lbf in (3.47 to 3.58 mdaN).

(5) Install the tank drain control cable (19) and conduit (Ref. 38-31-15, Removal/Installation). Seal the control cable conduit to the drip tray.

(a) Fit the new grommet seal (17) around the conduit (19) and inside the drip tray flange (16).

(b) Fit the sleeve seal (18) over the grommet seal (17) and drip tray flange (16).

(c) Apply a bead of sealant RTV 102 to seal the sleeve grommet seal and conduit.

C. Install Tank Mounting Brackets (Ref. Fig. 413)

(1) Position the tank mounting brackets (3) with new rubber washers (4) interposed between the brackets (3) and drip tray (5).

(2) Secure the mounting brackets (3) to the floor with washers (2) and bolts (1). Torque-tighten each bolt (1) to between 35 and 44 lbf in (0.40 and 0.50 mdaN).

(3) Encapsulate all floor mounting bolts (1) with sealant RTV 102.

D. Install Spigot Housings (Ref. Fig. 412)

(1) Support housing plates (2) and block (3) on aircraft structure (1) and secure with bolts (5) and washer (4).

E. Install LH Bulkhead/Main Toilet Unit (Ref. Fig. 411)

(1) Position foot fittings (5) locking plate (6) in seat track rails.

(2) Position LH bulkhead (7) on aircraft. Do not secure to aircraft bulkhead panel.

(3) Position main toilet unit (11) on aircraft.

(4) Mate spigot (13) on LH bulkhead (7) with aperture (12) on main toilet unit (11) and slide complete unit to final mounting location.

(5) Install bolts (1) and locking washers (2), in apertures (4) in fore and aft bulkhead (3).

(6) Mate bolts (1) with foot fitting (5) and locking plate (6), tighten sufficiently.

(7) Align bracket (10) on LH bulkhead (7) and main toilet unit (11) secure with screws (8) and washers (9).

(8) Install countersunk screw (14) in angle (15) on gangway bulkhead for support.

(9) Install bolt (21) and washer (20) in bracket (19) on LH bulkhead into the aircraft floor structure.

(10) From inside vanity unit hexagonal bolt (18) and washer (17) in aperture (16) on fore and aft bulkhead.

(11) Seal foot fittings in seat track rails with a bead of sealant RTV 102.

F. Install Securing Spigots (Ref. Fig. 410)

(1) Locate spigot (7) and packer (6) on lintel of main toilet unit (5).

(2) Ensure spigot (7) is correctly located in spigot housing (4) on aircraft structure and secure with bolts (9) and washers (8).

(3) Install countersunk screws (1) and washers (2) to secure Main Toilet Unit (3) to attendant seat posts.

G. Install Electrical Services

(1) Connect receptacles of main cable loom on fore and aft bulkhead lintel to aircraft cable loom.

(2) Connect receptacle to solenoid valve in water compartment.

H. Install Fresh Air Supply Pipe (Ref. Fig. 409)

WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND SURROUNDINGS CLEAN AND FREE FROM CONTAMINATION.

OBSERVE THE OXYGEN SAFETY PRECAUTIONS DETAILED IN 35-00-00, SERVICING.

OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

(1) Release screws (9) and washers (10) and remove smoke detector cover (11).

(2) Release screws (13) and remove smoke detector (12) from dispenser assembly (14).

(3) Remove air freshener holder (7) at base of cosmetic rack cover (6).

(4) Release screws (8) and remove cosmetic rack cover (6).

(5) Release shoot bolt (15) and open cosmetic rack door (16).

NOTE: Ensure sufficient play in supply pipe to allow unrestricted flow.

(6) Attach supply pipe (2) to main supply with clip (1).

(7) Feed supply pipe (2) through cosmetic rack (5).

(8) Trim supply pipe (2) to required length and attach to gasper (17) with clip (18).

(9) Close and lock cosmetic rack door (16).

(10) Replace cosmetic rack cover (6) with screws (8).

(11) Replace air freshener holder (7) on cosmetic rack (5).

(12) Support smoke detector (12) in dispenser assy (14) secure with screws (13).

(13) Support smoke detector cover (11) secure with screws (9) and washers (10).

J. Install Water Supply Pipe (Ref. Fig. 408)

(1) Remove screws (6) and washers (5) from speaker bracket (7) and allow to hang freely on cable loom.

(2) Mate supply pipe (1) from rear galley to isolation valve (3).

(3) Mate supply pipe (2) from toilet No.1 to isolation valve (3).

(4) Couple union on fore and aft bulkhead supply pipe (10) to isolation valve (3).

(5) Couple union on ceiling supply pipe (4) to isolation valve (3).

(6) Position speaker bracket (7) and secure with screws (6) and washers (5) to lintel.

(7) Open access flap on lintel, install control lever (9) and secure with circlip (8).

K. Install water Supply in Vanity Unit (Ref. Fig. 407)

CAUTION: TIGHTEN ALL PIPE UNIONS SUFFICIENTLY TO PREVENT ANY LEAKAGE.

(1) Install water heater (3) (Ref. 38-12-11).

(2) Remove protective plastic caps on inlet ports of solenoid valve.

(3) Install a 45° elbow (22) a washer (21) and O ring (19) to inlet ports of solenoid valve and outlet on top of water heater (3). Do not fully tighten locking nuts (20), so allowing the elbows to swivel for pipe union alignment.

(4) Connect water supply pipe assembly (1) to elbow (22) on top of solenoid, tighten union (23) and locking nut (20) sufficiently on elbow.

(5) Connect upper union to inlet port on faucet.

(6) Slide pipe assembly (12) into position in water heater compartment, couple unions (23) to 45° elbow (22).

(7) Tighten locking nut (20) on 45° elbow (22).

NOTE: Only install new O rings and grommets.

(8) Install tee union (14), a washer (16) and O ring (18) to base of water heater (3).

(9) Couple union (13) on pipe assembly (12) and tighten sufficiently to tee piece (14).

(10) Tighten locking nut (17) on tee piece (14).

(11) Couple hot water pipe (2) to 45° elbow (22), tighten locking nuts (20).

(12) Install line drain valve (7) (Ref. 38-12-15).

(a) Position the valve on the floor connection and secure the valve with the union nut. Torque tighten the nut to between 40 and 65 lbf in (0.45 and 0.73 mdaN).

(13) Position pipe assembly and couple union (4) to tee piece (14) and union (5) to line drain valve (7).

(14) Install union (10) into end of pipe assembly (9).

(15) Couple union (10) and pipe assembly (11) to supply pipe mounted on wall of fore and aft bulkhead.

(16) Couple union (6) to line drain valve (7) and tighten sufficiently.

(17) Install new grommet (8) around elbow on top of water heater (3) to seal aperture.

L. Install Pneumatic Flush Lines (Ref. Fig. 406)

CAUTION: TIGHTEN ALL UNIONS SUFFICIENTLY TO PREVENT ANY LEAKAGE.

(1) Install the toilet air flush valve (1) (Ref. 38-41-15).

(2) Install corner fitting (2) onto air flush valve (1).

(3) Couple air supply pipe (3) to corner fitting (2).

(4) Install union (4) into pipe assembly (3).

(5) Couple pipe assembly (5) to union (4), ensure bend faces aft and connect to tee piece (8).

(6) Connect pipe assembly (9) to forward connection on tee piece (8) and elbow (10).

(7) Install floor stub fitting (13) and corner fitting (12).

(8) Connect pipe assembly (11) to corner fitting (12) and elbow (10).

(9) Connect nut (7) on elbow (8) to air reservoir (6) on installation of toilet tank and toilet waste pipes (Ref. Removal/Installation of Toilet Waste Pipes, Fig. 405).

M. Install Toilet Waste Pipes (Ref. Fig. 405)

CAUTION: TIGHTEN ALL WORM DRIVE CLIPS AND UNIONS SUFFICIENTLY TO PREVENT ANY LEAKAGE.

(1) Fit a joint sleeve (7) and two worm drive clips (6) on end of supply pipe (4).

(2) Position supply pipe (4) in water heater compartment ensuring 90° bend in located through aperture in side wall.

(3) Locate bottom of supply pipe (4) with floor stub pipe, slide joint sleeve (7) into position and secure with worm drive clips (6).

(4) Fit a joint sleeve (9) and two worm drive clips (8) over end connection supply pipe (4).

(5) Fit a joint sleeve (14) over stub pipe (15) on air flush (1) secure with worm drive clips (13).

(6) Slide supply pipe (2) end connections into joint sleeves (9) and (14).

(7) Fit a joint sleeve (11) over stub pipe (12) on air flush valve (1) secure with worm drive clips (10).

(8) Slide sluice pipe assembly (3) into joint sleeve (11).

(9) Install toilet tank (5) (Ref. 38-31-11).

N. Install Sink Waste Water Pipes (Ref. Fig. 404)

CAUTION: TIGHTEN ALL WORM DRIVE CLIPS ON JOINT SLEEVES SUFFICIENTLY TO PREVENT ANY LEAKAGE.

(1) Install water overflow valve (3) (Ref. 38-31-18).

(2) Fit a joint sleeve (8) and two worm drive clips (6) onto sink overflow connection (1) and overflow valve connection (3).

(3) Ease waste pipe (5) into position, slide joint sleeves (8) over each end of pipe assembly (5), tighten worm drive clips (6).

(4) Slide sink waste pipe (4) into position.

(5) Fit a joint sleeve (9) and two worm drive clips (7) on each end of pipe assembly (4).

(6) Align sink waste pipe (4), slide joint sleeves (9) into position and tighten worm drive clips (7).

P. Install Electrical Services

(1) Connect cable loom on fore and aft bulkhead lintel to main aircraft cable loom.

(2) Connect electrical receptacle to solenoid in the water compartment.

Q. Install Drip Tray - Standing Area (Ref. Fig. 403)

CAUTION: IT IS IMPORTANT THAT THE HIGHEST STANDARD OF DRIP TRAY SEALING IS MAINTAINED TO MINIMIZE THE RISK OF POSSIBLE DAMAGE TO UNDERFLOOR EQUIPMENT IN THE EVENT OF FLUID SPILLAGE WITHIN THE TOILET AREA.

(1) Slide aft facing edge of drip tray (2) under vanity unit (1), carefully press drip tray (6) downwards mating with floor structure.

(2) Join and seal the joint between the outboard drip tray (8) and standing area drip tray (6) with a strip of waterproofed fabric sealing tape (3).

(3) Apply a bead of sealant (5) RTV 102 under the edge of the drip tray (6) at the doorway. Continue the bead along the drip tray top flange at the doorposts and LH bulkhead.

(4) Remove screw (7) from angle on gangway bulkhead.

(5) Position the floor threshold (4), secure with countersunk screws (7).

R. Install Compartment Doors (Ref. Fig. 402)

(1) Toilet Roll Holder

(a) Locate and slide hinge pins (2) of toilet roll holder (7) into hinge plates (3).

(b) Push toilet roll holder (7) backwards towards vanity unit (5), ensuring pinlatch (6) locks into bracket (4) located in the bottom right hand corner.

(2) Water Compartment Door

(a) Locate and slide hinge pins (14) of water compartment door (15) into hinge plates (13).

(b) Push door (15) back towards vanity unit (5).

(c) Locate bolt (16) in aperture on bracket (9).

(d) Hold door (15) in position slide latch keep (9), upwards from inside the vanity unit to lock door.

(3) Trash Bin Door

(a) Install trash bin in vanity unit.

(b) Locate base of trash bin door (11) over studs (12).

(c) Push door backwards towards vanity unit (5) ensuring latch (10) locks into strike plate (8).

(4) Door Locking Bar

(a) Push access flap (9) to release pin latch (8). Open access flap.

(b) Slide locking bar (7) inboard to engage pins (10) in top corner of water compartment door (19) and trash bin door (15).

(c) Close access flap (9) push firmly to engage pin latch (8).

S. Install Shrouds (Ref. Fig. 401)

(1) Position front panel (4) on toilet tank, align dual lock strips and press firmly to secure.

(2) Locate top panel and toilet seat (5) on toilet tank and slide backwards into position.

(3) Position curved ceiling panel (1) aligning air aperature on lower edge. Press dual lock to secure panel in position.

(4) Position air vent panel (7) along lower edge edge of curved ceiling panel. Press dual lock to secure into position.

(5) Position outboard wall panel (6), connect flush mechanism to flush handle (3) (Ref. 38-41-15). Press dual lock to secure into position along upper and lower edges.

(6) Position upper ceiling panel (2). Press dual lock to secure panel.

T. Conclusion

(1) Install passenger seats (Ref. 25-20-00).

(2) Install toilet door (Ref. 52-51-00).

(3) Reset the circuit breakers previously tripped.

(4) Replenish the fresh water system in accordance with 38-11-00, Servicing.

(5) Test the toilet wash system (Ref. 38-12-00, Adjustment/Test).

(6) Charge the toilet tank with sanitary fluid (Ref. 12-16-38).

(7) Test the toilet tank (Ref. 38-31-11, Adjustment/Test).

(8) Test the toilet lighting (Ref. 33-22-00, Adjustment/Test).

(9) Test the toilet signs (Ref. 33-25-00, Adjustment/Test).

(10) Test the call system (Ref. 33-27-00, Adjustment/Test).

(11) Test the toilet oxygen system (Ref. 35-21-15, Adjustment/Test).

**ON A/C 001-005,

No.3A TOILET (SHELL) - REMOVAL/INSTALLATION

**ON A/C 001-005,

WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND SURROUNDINGS CLEAN AND FREE FROM CONTAMINATION.

OBSERVE THE OXYGEN SAFETY PRECAUTIONS DETAILED IN 35-00-00, SERVICING.

OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

R B Mod 25C517 removes the No. 3A toilet.
No. 3A toilet is situated forward of No. 3 toilet on the right hand side of the intermediate vestibule.

To implement certain non-destructive testing procedures, to carry out maintenance operations, or to alter the aircraft seating configuration, the toilet will need to be removed.

The toilet comprises two transverse bulkheads joined by a fore and aft bulkhead to form a shell. It is completed with drip trays, trim panels, WC unit, inboard and outboard consoles and the associated water, waste and electrical services.

2. Toilet (Shell) - Removal (Ref. Fig. 401)

A. Equipment and materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque spanners 0-700 lbf in (0-8 mdaN)	-
Waterproof fabric sealing tape 2 in (50 mm) (CM717)(Ref.20-30-00, No.161)	-

DESCRIPTION	PART NO.
Elastomeric compound (CM 718) (Ref. 20-30-00, No.162)	-
R Sealant RTV 731 or RTV732 (Ref.20-30 R 00, No.364)	-
Sealant PR1422, DTD 900-4709(Ref. 20-30-00 No.358)	-
Brushing sealant PR1422 BT, DTD900 - 4590 (Ref.20-30-00, No. 379)	-
Sealant JC-5A (Ref. 20-30-00 No. 382)	-
Bostik 2402 (Ref. 20-30-00,No.328)	-
General purpose cleaning solvent BACM 302 (Ref. 20-30-00,No.473)	-

B. Prepare

(1) Drain the water system (Ref. 12-36-00).

(2) Trip the following circuit breakers and fit safety clips:

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
CTR RH FWD TOILET WATER HTR SUP	14-216	M226	A17
TOILET MAIN LTS SUP	14-216	L985	C10
CABIN NIGHT LTS SUP	5-213	L455	D19
PA SUP	1-213	R139	K20
PASS CALL SUP	15-216	M78	A22
FASTEN S/BELTS SUP	1-213	W191	L 8

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
RAZOR OUTLET SUP	15-215	M211	G 5

C. Remove WC Assembly (Ref. Fig. 401)

(1) Remove the toilet door (Ref. 52-51-21, Removal/Installation).

(2) Remove the WC top and front covers (Ref.25-41-14, Removal/Installation).

(3) Remove the toilet tank (Ref. 38-31-11, Removal/Installation).

(4) Remove the sealant encapsulating the bolts and remove the bolts and washers securing the tank forward mounting bracket to the floor and to the transverse bulkhead. Remove the mounting bracket and recover the rubber washers interposed between the bracket and the drip tray.

(5) Remove the tank drain control cable mounting bracket:

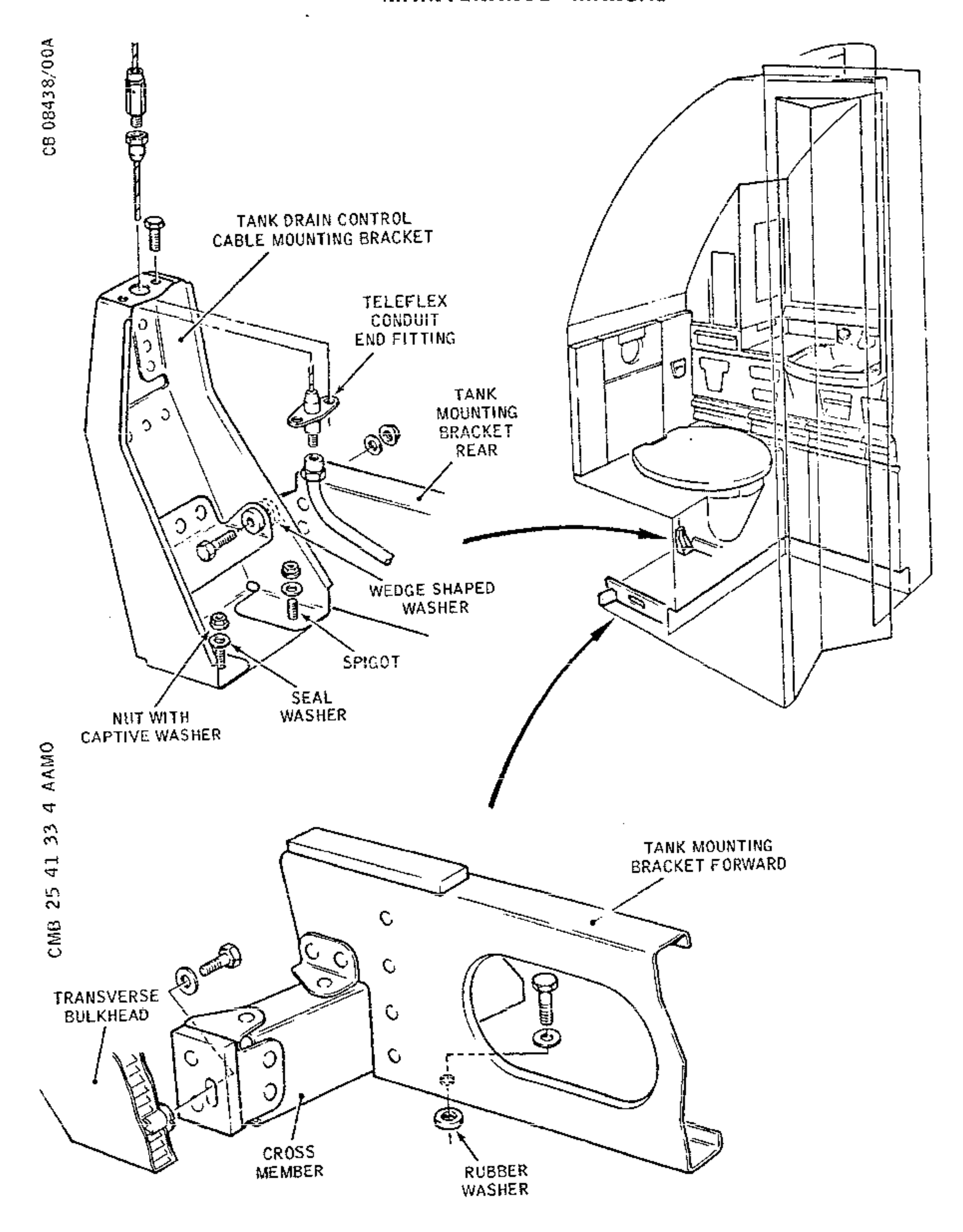
(a) Cut the locking wire, and unscrew the bolts securing the teleflex conduit end-fitting to the mounting bracket. Remove the teleflex assembly from the bracket.

(b) Remove the nut, bolt and packing washer securing the control cable mounting bracket to the tank rear mounting bracket.

(c) Remove the sealant encapsulating the nuts, and remove the nuts and seal washers securing the control cable mounting bracket to the spigots in the seat rails. Remove the bracket.

(6) Remove the sealant encapsulating the bolts and remove the bolts and washers securing the tank rear mounting bracket to the floor. Note the position of the special bolt for the bonding lead. Remove the bracket and recover the rubber washers interposed between the bracket and the drip tray.

D. Remove Panels and Furnishings (Ref. Fig. 402)



Toilet Tank Supports - Installation
Figure 401

(1) Remove the roof panel (Ref. 25-41-17, Removal/Installation).

(2) Remove the toilet mirror (Ref. 25-41-12, Removal/Installation).

(3) Remove the cosmetic stowage:

(a) Push on the spring clip at the top of the cosmetic stowage, lift the unit to disengage the keyhole slots from the mounting screws in the fore and aft bulkhead and remove the cosmetic stowage from its mounting.

(4) Remove the inboard console (Ref. 25-41-15, Removal/Installation).

(5) Remove the horizontal strip light over the wash basin:

(a) Remove the screws and washers securing the bottom edge of the translucent cover to the backplate assembly and withdraw the upper edge of the cover from the slot in the backplate.

(b) Trace the electrical cables from the fluorescent tube holder to the in-line splices in the loom, and identify the cables to assist installation; cut the cable close to the splice.

(c) Remove the screws securing the backplate assembly to the bulkhead and remove the backplate.

(6) Remove the outboard console assembly:

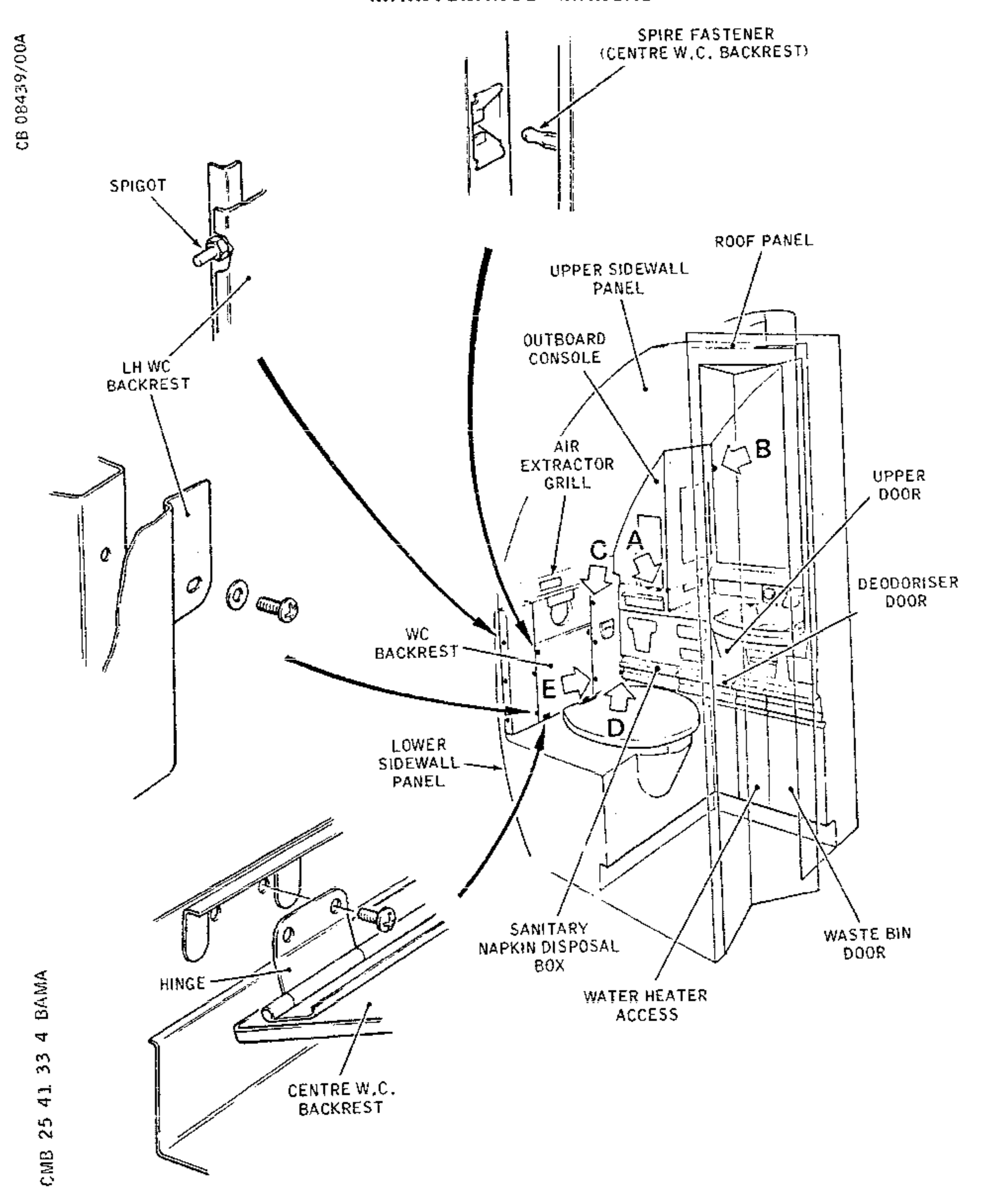
(a) Remove the oxygen mask stowage (Ref.35-21-15, Removal/Installation). Cover the connectors with clean plastic bags.

(b) Remove the screws securing the console to the bulkhead and to the sanitary napkin dispenser assembly. Remove the outboard console.

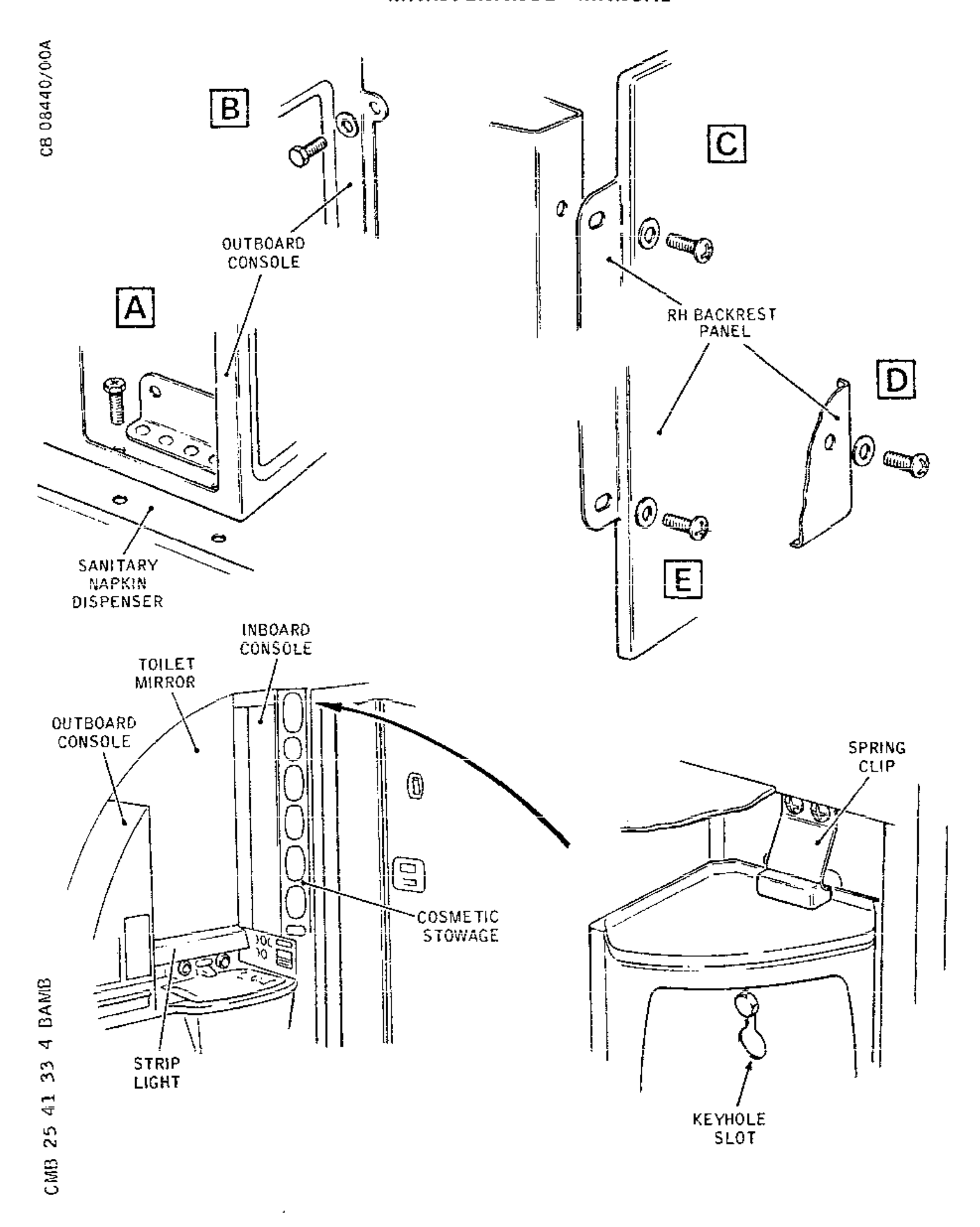
(7) Remove the air extraction grille above the WC backrest.

(a) Pull the grille inboard to release the spire fasteners; and remove the grille.

(8) Remove the upper sidewall panel:



Toilet Furnishings - Installation (Sheet 1 of 2)
Figure 402



Toilet Furnishings - Installation (Sheet 2 of 2)
Figure 402

(a) Remove the screws and washers securing the panel cut-out to the air duct connector.

(b) Remove the bolts and washers securing the top edge of the panel to the ceiling support structure.

(c) Remove the screws and washers securing the bottom edge of the panel to the lower sidewall panel.

(d) Carefully pull each side of the panel inboard to release the spire fasteners securing the panel to the toilet shell bulkhead angles; remove the panel.

E. Remove WC Backrest Panels and Toilet Cabinet Doors (Ref. Fig. 402)

(1) Remove the centre backrest panel:

(a) Hinge downward the spring-hinged top section of the backrest panel.

(b) Hold the panel at each side and pull it inboard to release the spire fasteners securing the top edges of the lower section. Hinge the panel down and remove the used towel bin located behind the panel.

(c) Remove the screws securing the hinges; and remove the backrest panel.

(2) Remove the left-hand backrest panel:

(a) Remove the screws and washers securing the right-hand edge of the panel.

(b) Slide the panel to the right to release the spigots from the receptacles in the bulkhead; remove the panel.

(3) Remove the right-hand backrest panel:

(a) Remove the toilet flush air valve (Ref. 38-41-15, Removal/Installation).

(b) Remove the four screws securing the top of the sanitary napkin disposal box support tray located inside the toilet cabinet assembly. Remove the tray.

NOTE: Access to the screws is through the toilet

cabinet opening.

(c) Remove the four screws and washers securing the right-hand edge of the panel.

(d) Remove the three screws and washers securing the left-hand edge of the panel.

(e) Slide the panel to the left to disengage the retaining lip at the panel cut-out and remove the panel, at the same time feeding the toilet flush control cable through the grommet in the lower sidewall panel.

(4) Remove all the toilet cabinet doors by unscrewing them at their hinges, to gain access to the pipes and components under the wash basin. Open the doors as follows:

(a) Upper door: press the release latches at the upper corner at each end.

(b) Sanitary napkin disposal door; pull to release the magnetic catch. Remove the disposal bin.

(c) Deodoriser pack fixed door: remove the two bolts and washers at the top edge.

(d) Water heater access door: remove the bolt and washer at the top edge.

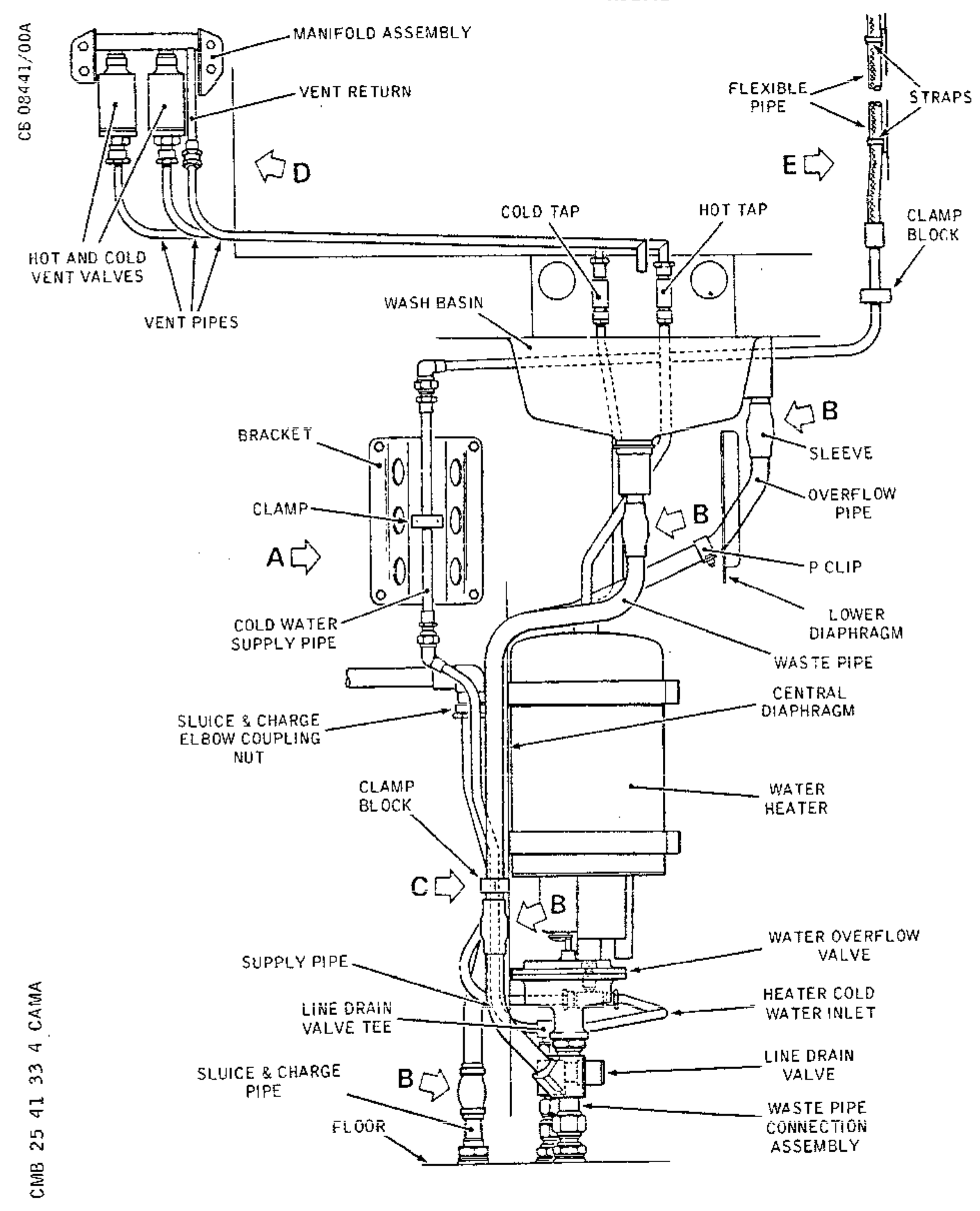
(c) Waste bin door: press the release latch, open the door and press the spring loaded stop to lower the door beyond the stop; remove the waste bin.

F. Remove the Wash Basin Assembly (Ref. Fig. 403)

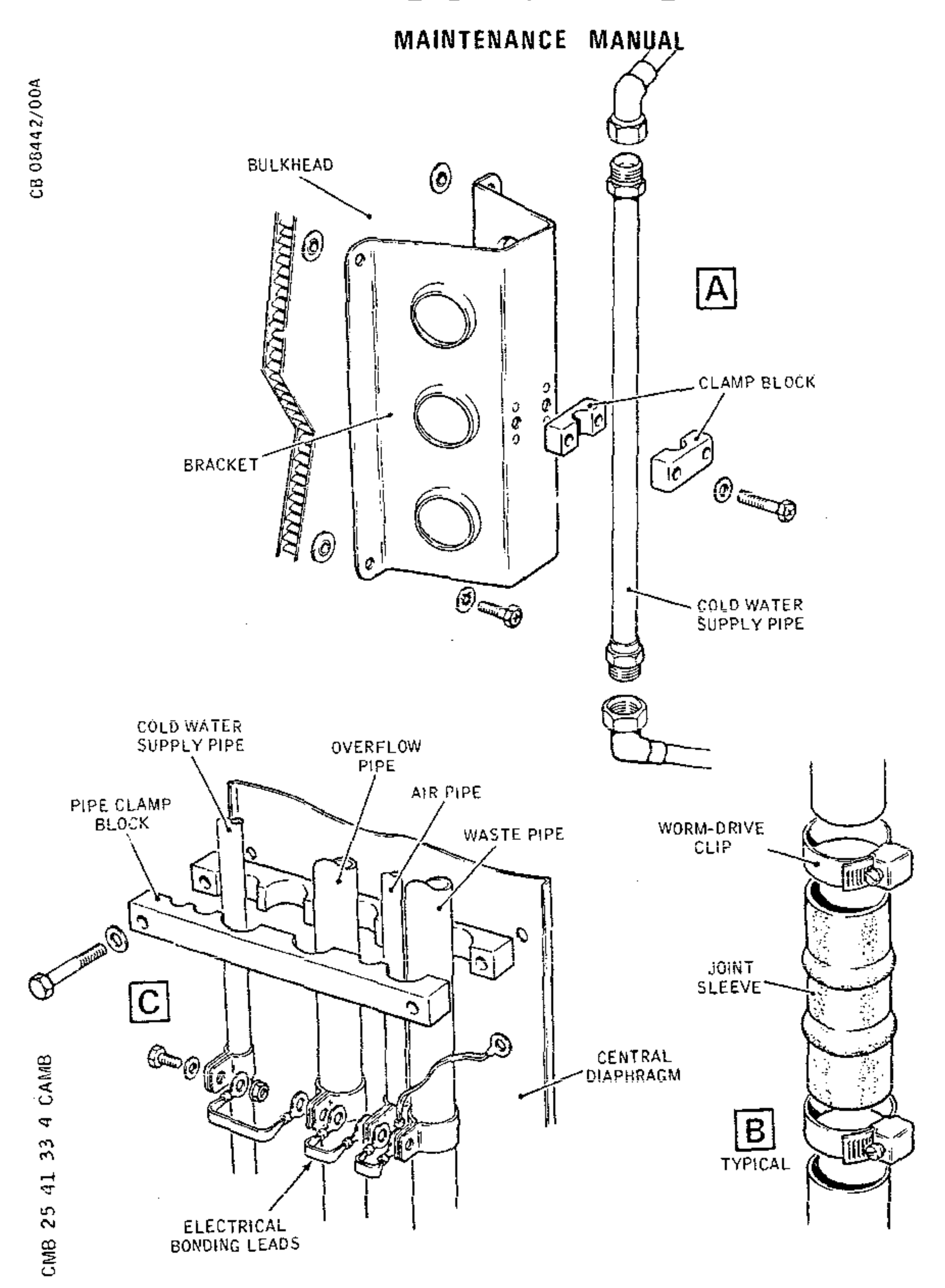
(1) Remove the faucet cover and the taps (Ref.38-12-12, Removal/Installation).

(2) Disconnect the pipe clamp and electrical bonding leads from the toilet cabinet framework below the wash basin (Ref. Detail C):

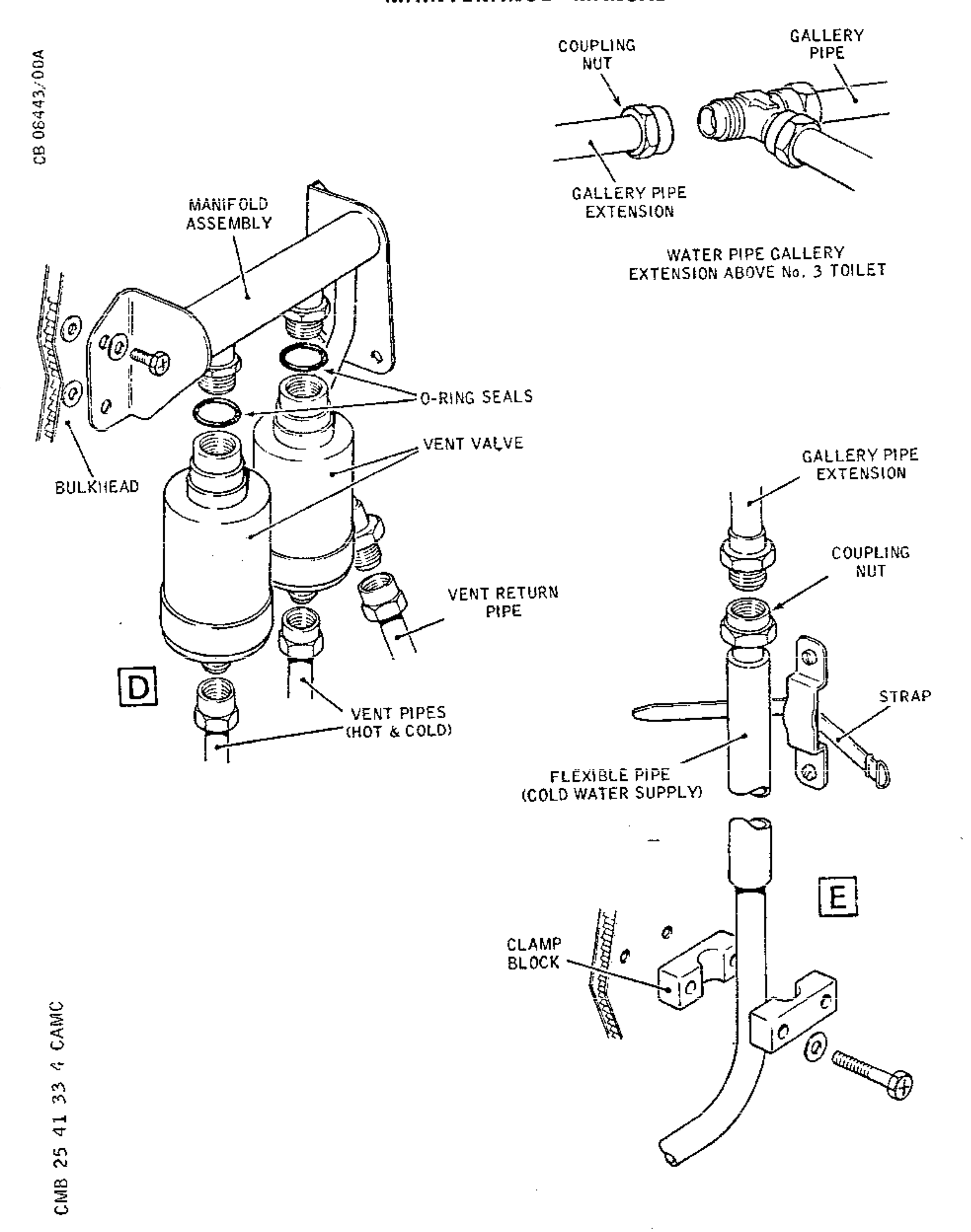
(a) Remove the nuts, washers, bolts and pipe clips securing the bonding leads which earth the pipes to the central diaphragm of the toilet cabinet framework.



Toilet System Pipe Connections (Sheet 1 of 3)
Figure 403



Toilet System Pipe Connections (Sheet 2 of 3)
Figure 403



Toilet System Pipe Connections (Sheet 3 of 3)
Figure 403

(b) Remove the bolts and washers securing the two halves of the pipe clamp block to the central diaphragm. Remove the top half of the clamp block.

(3) Remove the wash basin waste pipe (Ref. Detail B):

(a) Slacken the worm-drive clips and slide the joint sleeve clear at each end of the waste pipe.

(b) Remove the pipe and fit suitable blanks to the pipe ends and wash basin.

(4) Remove the water overflow valve (Ref. 28-31-18, Removal/Installation).

(5) Remove the wash basin overflow pipe (Ref.Detail B):

(a) Slacken the worm-drive clips and slide the joint sleeve clear of the wash basin overflow stub.

(b) Remove the nut, bolt and P clip securing the overflow pipe to the lower diaphragm.

(c) Remove the overflow pipe and fit suitable blanks to the pipe end and wash basin stub.

(6) Remove the STEWARD CALL lamp/switch (Ref. 33-27-00, Removal/Installation).

(7) Remove the RETURN TO SEAT sign (Ref. 33-25-00, Removal/Installation).

(8) Remove the razor socket (Ref. 25-41-00, Removal/Installation).

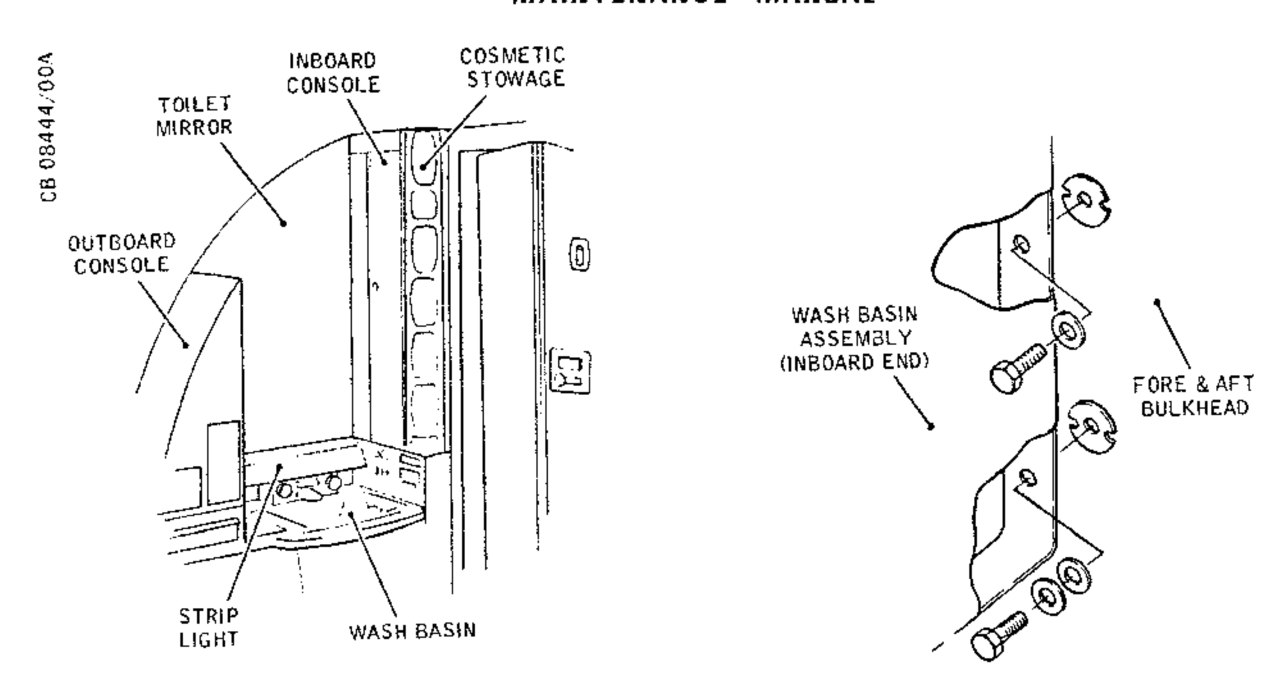
G. Remove the Wash Basin Assembly (Ref. Fig. 404)

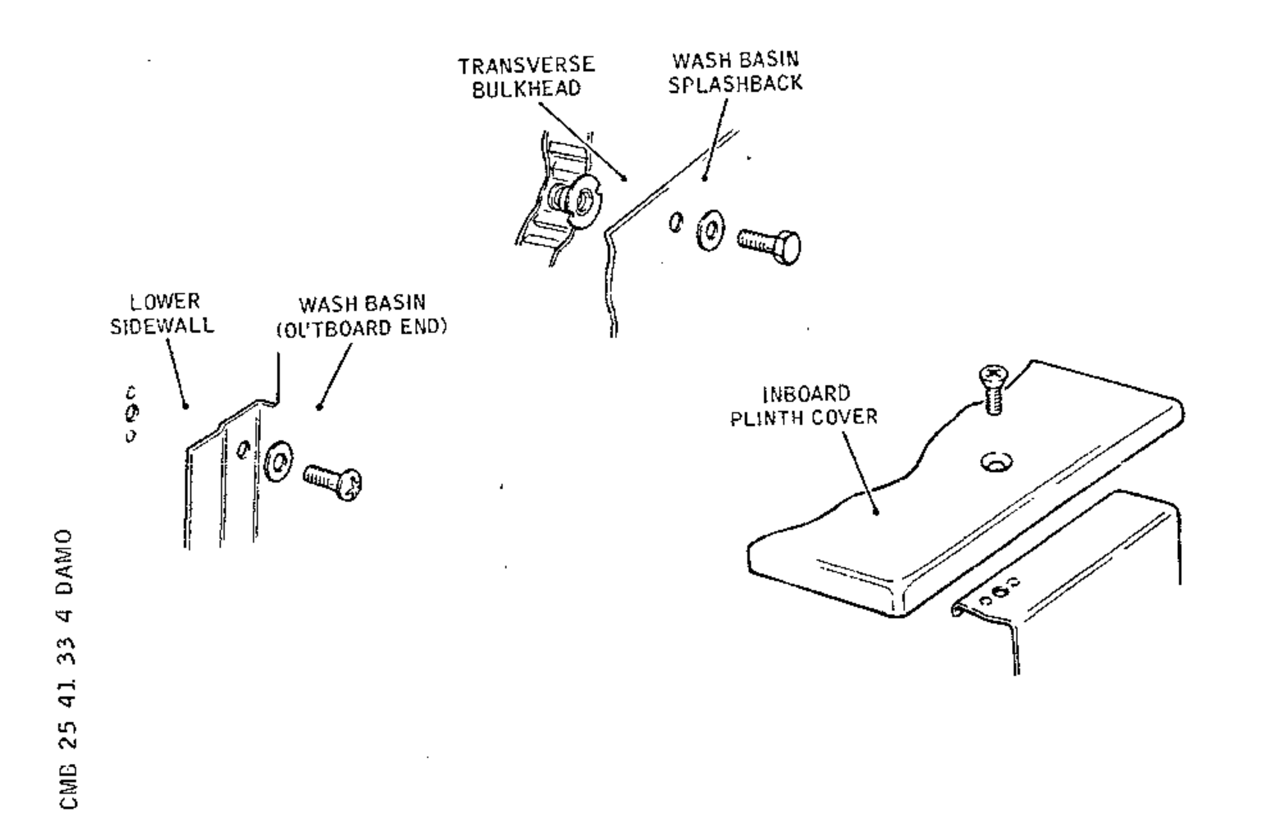
(1) Remove the screw securing the inboard plinth cover on the wash basin sub-assembly on the right-hand side. Remove the plinth cover.

(2) Remove the screws and washers securing the wash basin splash back to the transverse bulkhead.

(3) Remove the two bolts and washers inside the wash basin sub=assembly, which secure the sub-assembly to the fore and aft bulkhead.

NOTE: There are two washers on the lower bolt.





Wash Basin Assembly - Installation
Figure 404

(4) Remove the two screws and washers securing the outboard end of the washbasin assembly to the lower sidewall. Remove the wash basin.

H. Remove Water/Waste Pipes and Components Above Floor (Ref. Fig. 403)

(1) Remove the water heater assembly (Ref. 38-12-11, Removal/Installation).

(2) Remove cold water supply pipe and bracket (Ref. Detail A):

(a) Remove the screws and washers securing the clamp block to the bracket. Remove the clamp block.

(b) Unscrew the coupling nuts at each end of the supply pipe and remove the pipe.

(c) Remove the screws and washers securing the bracket to the bulkhead and remove the bracket.

(3) Unscrew the coupling nut securing the supply pipe to the line drain valve tee and remove the pipe.

(4) Unscrew the coupling nuts at the heater cold water inlet and the tee at the line drain valve. Remove the pipe complete with the tee junction.

(5) Remove the cold tap supply pipe from the central diaphragm and clamp block.

(6) Unscrew the coupling nut securing the line drain valve to the stub at floor level. Remove the valve.

(7) Unscrew the coupling nut securing the waste connection assembly to the stub at floor level. Remove the waste connection assembly.

(8) Remove the sluice and charge pipe:

(a) Slacken the worm drive clips and slide the joint sleeve clear of the stub pipe at floor level (Ref.Detail B).

(b) Unscrew the elbow union coupling nut at the top end of the pipe and remove the pipe.

(9) Unscrew the coupling nut securing the air pipe to the stub at floor level.

(10) Unscrew the coupling nuts securing the hot and cold vent pipes to their respective vent valves on the manifold. Remove the pipes (Ref.Detail D).

(11) Unscrew the coupling nut securing the vent return pipe to the manifold. Remove the pipe (Ref.Detail D).

(12) Unscrew the vent valves from the manifold; remove and discard the O-ring seals.

(13) Remove the screws and washers securing the manifold assembly to the bulkhead; remove the manifold.

(14) Remove the cold water supply pipe run from the gallery pipe (Ref. Detail E):

(a) Remove the straps securing the flexible pipe to the brackets at the inboard console.

(b) Remove the screws, washers and clamp at the bottom end of the pipe.

(c) Unscrew the coupling nut at the top end of the pipe and remove the pipe.

(15) Uncouple the gallery pipe extension from above No.3 toilet:

(a) Remove the ceiling panel in No.3 toilet by pulling down the panel to release the spire fasteners (Ref. 25-41-17, Removal/Installation).

(b) Unscrew the coupling nut securing the extension pipe at the tee junction and remove the pipe.

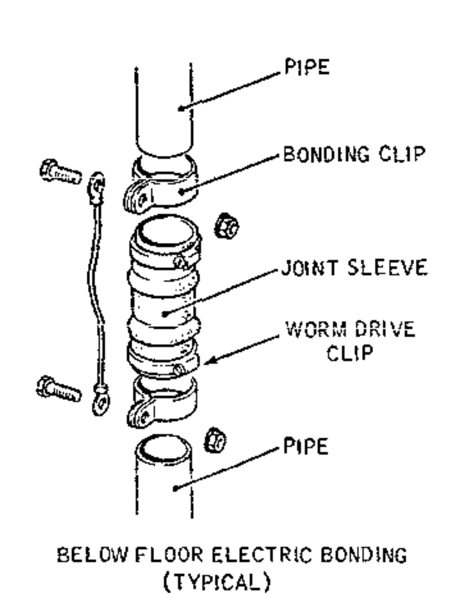
(c) Fit a blank plug to the open aperture of the tee junction.

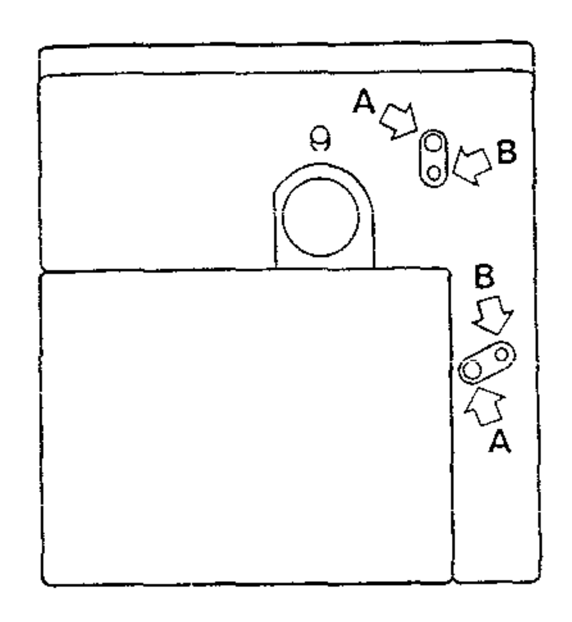
(d) Replace the ceiling panel.

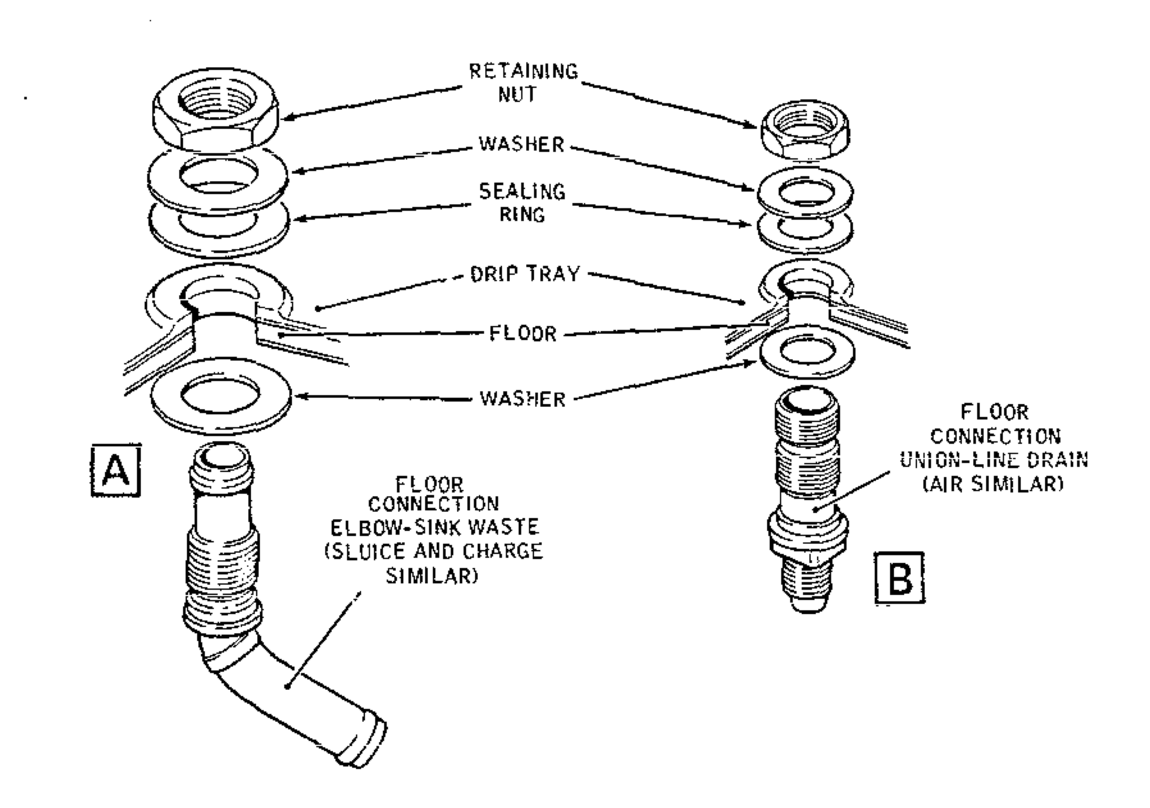
J. Remove Small-bore Pipe Connections On Floor (Ref. Fig. 405)

NOTE: To remove the drip tray, waste, water and air pipe floor connections must be removed. An assistant is required to hold the elbow below the floor with a suitable spanner to prevent the assembly from turning when removing the retaining nut. Access to the area below the floor is gained through the lower baggage compartment.

CB 08445/00A







CMB 25 41 33 4 EAMO

Small-bore Pipes - Floor Connections
Figure 405

(1) Below the floor remove panel 132 VS in the lower baggage compartment.

(2) Remove the joint sleeve from the sink waste pipe and the sluice and charge pipe:

(a) Remove the electrical bonding clips and lead on each side of the joint sleeve.

(b) Slacken the worm-drive clip and disengage the joint sleeve from the pipes.

(c) Fit a blank to the open end of each pipe.

(3) Remove the sink waste, sluice and charge, line drain and air pipe floor connections:

NOTE: The line drain and air pipe must be disconnected below the floor by unscrewing the coupling nut from the appropriate floor connections.

(a) Below the floor, restrain the floor connection from turning then, above the floor, unscrew and remove the retaining nut.

(b) Remove the washer and sealing ring, and withdraw the floor connection from below the floor; remove the washer.

(4) Remove the sealant, the sleeve seal and the grommet seal around the tank drain control cable conduit at the inlet point on the drip tray.

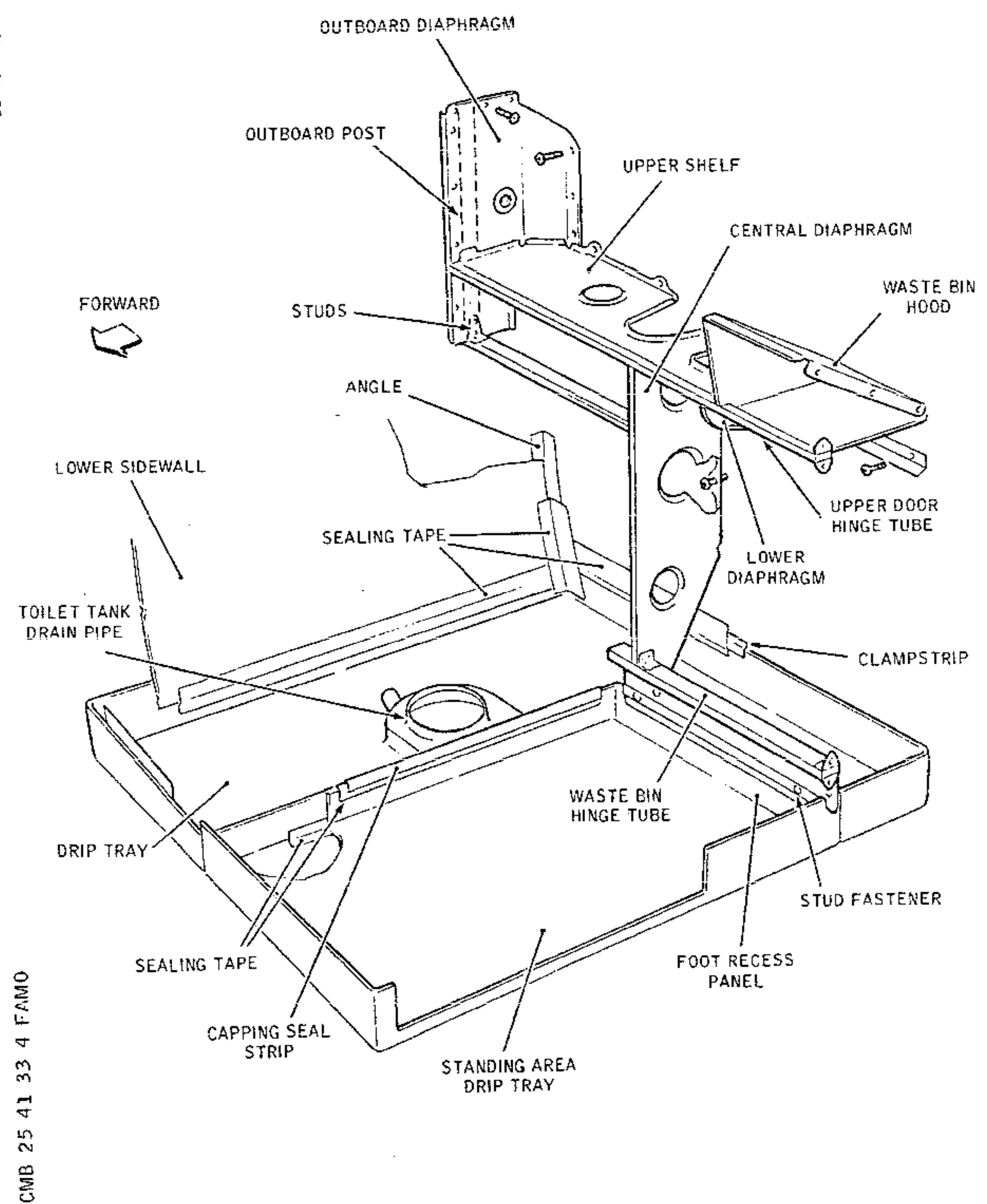
(5) Remove the toilet tank drain control cable and conduit in accordance with 38-31-15, Removal/Installation, with the exception of the para. referring to the floor fitting which, in toilet No.3A, is mounted on the teleflex control cable bracket inside the toilet compartment.

K. Remove Drip Tray (Ref. Fig. 406)

(1) Remove the screws securing the toilet cabinet frame to the transverse bulkhead at the following locations:

(a) Outboard diaphragm - three screws

(b) Upper shelf - four screws



Drip Tray - Installation
Figure 406

Printed in England

(c) Lower diaphragm and angle below the waste bin hood - five screws

(d) Central diaphragm - two screws

(e) Cabinet bracket (attached to central diaphragm) - three screws

(2) Remove the screws securing the toilet cabinet frame to the fore and aft bulkhead at the following locations:

(a) Upper door hinge tube - two screws

(b) Waste bin hinge tube - two screws

(3) Unscrew the two studs and the screw securing the outboard post to the sidewall.

(4) Remove the toilet cabinet frame carefully to avoid damaging the decorative finish on the bulkheads.

(5) Remove the lower sidewall:

(a) Strip-off the sealing tape at each corner below toilet seat level, and the tape sealing the bottom edge of the panel to the drip tray.

(b) Remove the screws and washers securing each side of the panel to the forward and aft transverse bulkhead angles. Remove the panel.

(6) Remove the standing area drip tray (Ref. 25-41-16, Removal/Installation).

(7) Remove the outboard area drip tray:

(a) Strip-off the sealing tape covering the drip tray clamp strips on the bulkheads.

(b) Remove the screws securing the drip tray clamp strips to the bulkheads; remove the clamp strips.

(c) Strip the sealing tape from the drip tray-to-floor junction.

(d) Remove the drip tray, easing it carefully away from the tank drain pipe in order to break the sealant bead.

(e) Remove the teleflex control bracket mounting spigots, lockplates and packing from the seat rails.

(f) Thoroughly clean old sealant from all surfaces with general purpose cleaning solvent, BACM 302.

L. Remove Toilet Tank Drain Pipe (Ref. Fig. 407)

(1) Remove the electrical bonding clips and lead connecting the No.3A toilet tank drain pipe to the Y-junction pipe below the floor.

(2) Remove the worm-drive clips securing the pipe joint sleeve over the drain pipe and Y-junction pipe. Slide the sleeve clear of the join.

(3) Remove the sealing tape sealing the toilet tank drain pipe where it comes through the floor.

(4) Support the drain pipe and remove the screws securing the drain pipe flange to the floor. Remove the drain pipe and the sealing ring; discard the ring. Fit blanks to the pipe and Y-junction pipe.

M. Remove Electrical Components

(1) Remove the toilet door microswitch (Ref. 33-22-00, Removal/Installation).

(2) Remove the loudspeaker and the loudspeaker transformer located in the toilet roof above the door (Ref. 23-31-32, Removal/Installation).

(3) Remove the aisle ceiling panel outside the toilet (Ref. 25-21-12, Removal/Installation), then disconnect the toilet services cable loom from the terminal block (UM 2234) located on the roof structure at frame 37. Remove the P-clips securing the cable loom and remove the loom.

N. Remove Toilet Shell (Ref. Fig. 408)

(1) Remove the emrgency pack (Ref. 25=62=12, Removal/ Installation).

(2) Remove the inflation bottle for the intermediate service door slide raft (Ref. 25-65-14, Removal/ Installation).

(3) Remove the emergency pack and inflation bottle

CB 08447/00A

TOILET TANK DRAIN PIPE
BONDING CLIP
WORM-DRIVE CLIP
JOINT SLEEVE
ELECTRICAL BONDING LEAD

TOILET TANK DRAIN PIPE BELOW FLOOR ELECTRICAL BONDING

A

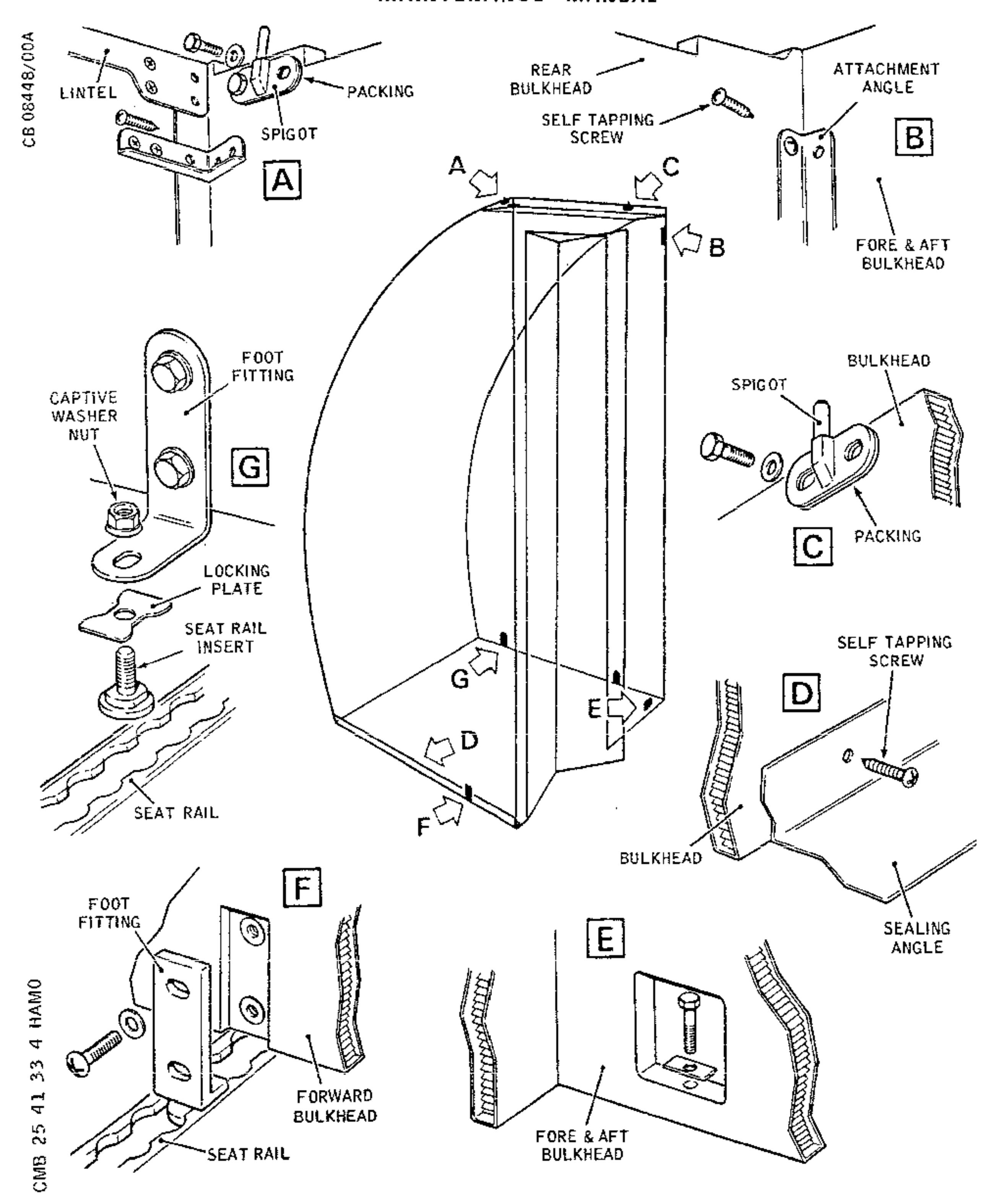
TOILET TANK DRAIN PIPE
DRIP TRAY
SEALANT
GROMMET SEAL
SLEEVE SEAL
SEALING TAPE
FLOOR
SEALING RING
FLANGE

A

CMB 25 41 33 4 GAMO

Toilet Tank Drain Pipe - Installation
Figure 407

Printed in England



Toilet Shell - Installation
Figure 408

support structure (Ref. 25-65-16, Removal/Inflation).

(4) Remove the forward transverse bulkhead:

(a) Carefully remove the glued on trim strip covering the join between the bulkhead and the fore and aft bulkhead lintel. Remove the self-tapping screws securing the end of the lintel to the forward bulkhead (Ref. Detail A).

(b) Remove the screws securing the sealing angle to the bottom inside face of the bulkhead; remove the angle (Ref. Detail D).

(c) Remove the screws and washers securing the foot fitting to the outside face of the bulkhead. Remove the foot fitting from the seat rail (Ref. Detail F).

(d) Support the bulkhead and remove the bolts and washers securing the spigot at the top of the bulkhead (Ref. Detail A). Note the bolt length. Remove the spigot from the fitting on the fuselage structure and recover the packing from between the spigot and bulkhead noting the amount. Remove the bulkhead.

(5) Remove the fore and aft bulkhead:

(a) Remove the self-tapping screws securing the transverse bulkhead to the fore and aft bulkhead through the attachment angle (Ref. Detail B).

(b) Remove the bolt and washer securing the foot of the bulkhead to the floor (Ref. Detail E).

(c) Remove the bolts and washers securing the spigot at the top of the bulkhead (Ref. Detail C). Note the bolt length. Remove the spigot from the fitting on the fuselage structure and recover the packing from between the spigot and the bulkhead, noting the amount. Remove the bulkhead.

(6) Remove the aft transverse bulkhead:

(a) Remove the captive washer nuts securing the foot fittings to the seat rail inserts (Ref. Detail G). Remove the bulkhead.

(b) Recover the locking plates and inserts from the

seat rails (Ref. Detail G).

(7) Clean the old sealant from the bulkheads, the floor and the seat rails with a clean, lint-free cloth moistened with cleaning solvent.

3. Toilet (Shell) Installation

CAUTION: THE HIGHEST STANDARD OF DRIP TRAY SEALING MUST BE MAINTAINED TO MINIMIZE THE RISK OF POSSIBLE DAMAGE TO THE UNDERFLOOR EQUIPMENT AND STRUCTURE IN THE EVENT OF FLUID SPILLAGE WITHIN THE TOILET AREA.

A. Install Toilet Shell

(1) Comply with the electrical safety precautions.

(2) Install the aft transverse bulkhead: (Ref. Fig. 408)

(a) Position the locking plates and inserts in the seat rails (Ref. Detail G).

(b) Position the bulkhead so that the foot fittings engage the seat rail inserts. Secure them with captive washer nuts (Ref. Detail G).

(c) Position the lower sidewall panel and secure it to the angle on the aft transverse bulkhead, with screws and washers.

(3) Install the fore and aft bulkhead:

(a) Position the bulkhead and secure it to the aft transverse bulkhead with self-tapping screws through the attachment angle (Ref.Detail B).

(b) Fit the spigot into the fitting on the fuselage structure at the top of the bulkhead. Fit the packing, previously removed, between the spigot and the bulkhead and secure the spigot to the bulkhead with the bolts and washers. Use the long bolts (Ref. Detail C).

(c) Secure the bottom of the bulkhead to the floor with a bolt and washer (Ref. Detail E).

(4) Install the forward transverse bulkhead:

NOTE: Position the toilet door at this stage to ensure correct clearances and even gaps all round the door and frame.

(a) Position the bulkhead and secure it to the lintel of the fore and aft bulkhead with self-tapping screws (Ref. Detail A).

(b) Fit the spigot into the fitting on the fuselage structure at the top of the bulkhead. Fit the packing, previously removed, between the spigot and the bulkhead and secure the spigot to the bulkhead with bolts and washers. Use the short bolts (Ref. Detail A).

(c) Position the foot fittings in the seat rails and secure them to the bulkhead with washer and pan-head screws (Ref. Detail F).

(d) Fit the sealing angle to the bottom inside face of the bulkhead, and secure it with screws. (Ref. Detail D).

(e) Cover the join between the forward bulkhead and the lintel with a trim strip, using Bostik 2402.

(f) Secure the lower sidewall panel to the angle on the forward bulkhead with screws and washers.

(5) Seal the aft transverse bulkhead and the fore and aft bulkhead to floor interfaces with a bead of sealant:

**ON A/C 001-003,

R Use sealant RTV 731 or RTV 732.

**ON A/C 004-005,

Use sealant PR 1422.

**ON A/C 001-005,

These two sealants are not interchangeable.

B. Install Toilet Tank Drain Pipe (Ref. Fig. 407)

NOTE: Where pipe assemblies pass through the floor, wet assemble in accordance with 20-22-12.

(1) Remove the blanks and fit a new sealing ring on the drain pipe flange and fit a joint sleeve and two worm drive clips loosely to the long straight section of the pipe.

(2) Remove the blank from the Y-junction pipe below floor. Position the drain pipe flange through the aperture in the floor from below and align the drain pipe and Y-junction pipe. Slide the joint sleeve over the join and position the worm-drive clips. Do not tighten the clips at this stage.

(3) Insert the securing screws from above the floor and tighten them into the captive nuts on the drain pipe flange. Ensure that the pipe and Y-junction pipe are correctly aligned before finally tightening the screws.

(4) Ensure that the join sleeve is equally positioned over the pipe joint and tighten the worm-drive clips.

(5) Fit an electrical bonding clip to the pipe on each side of the pipe joint sleeve and connect the clips with a bonding lead in accordance with 20-27-11.

(6) Seal the section of the pipe flange above floor to the floor with waterproofed-fabric sealing tape and overcoat the tape with elastomeric compound. Overlap the tape joint by 0.5 in (12.7 mm) minimum.

C. Install the Outboard Drip Tray (Ref. Fig. 406)

(1) Position the teleflex control bracket mounting spigots, lock plates and packing in the seat rail.

(2) Fit the drip tray under the lower sidewall panel and over the toilet drain pipe and the teleflex control bracket mounting spigots. Align the holes for the pipe stubs and the tank mounting bracket bolts.

(3) Apply a bead of sealant PR 1422 under and around the lip of the drip tray to toilet drain pipe joint.

(4) Position the drip tray clamp strips on the fore and aft bulkhead and the transverse bulkheads. Secure them with screws. Cover the clamp strips with water-proofed-fabric sealing tape and overcoat the tape with elastomeric compound.

(5) Apply a strip of waterproofed-fabric sealing tape from the side of the drip tray to the floor on the remaining exposed sides of the drip tray; overcoat the tape with elastomeric compound.

(6) Apply waterproofed-fabric sealing tape to cover the sidewall panel joint from the bottom of the panel to

approximately level with the toilet seat at each corner.

(7) Apply waterproofed-fabric sealing tape across the bottom of the sidewall panel to drip tray joint and overcoat the tape with elastomeric compound.

D. Install Small-bore Pipe Connections On Floor (Ref. Fig. 405)

<u>NOTE</u>: An assistant is required to hold the connections below the floor, with a suitable spanner, to prevent the assembly from turning when the retaining nut is tightened. Access to the area below floor is gained through the lower baggage compartment, panel 132 VS.

Assemble pipes and couplings in accordance with 20-23-11 and 20-23-12.

(1) Install the sluice and charge elbow floor connection:

(a) Remove the blanks, fit a washer to the elbow union and insert the union through the appropriate hole in the floor, from below.

(b) Fit a new sealing ring, washer and retaining nut to the elbow union above the floor. Do not tighten the nut.

(c) Remove the blank and align the elbow union and the sluice and charge pipe below the floor. Slide the joint sleeve equipped with two worm-drive clips over the pipe joint; secure the joint sleeve with the worm-drive clips.

(d) Fit an electrical bonding clip to the pipe at each side of the joint sleeve and connect the clips with a bonding lead in accordance with 20-27-11.

(e) Hold the elbow assembly below the floor with a spanner. Torque tighten the elbow retaining nut above the floor to between 645 and 655 lbf in (7.29 to 7.4 mdaN).

(2) Install the air elbow floor connection:

(a) Remove the blanks, fit a washer to the elbow union and insert it through the appropriate hole in the floor from below.

(b) Fit a new sealing ring, washer and retaining nut to the elbow union above the floor. Do not tighten the nut.

(c) Remove the blank and align the elbow union and the air pipe below the floor and connect them with the coupling nut. Torque tighten the nut to between 60 and 80 lbf in (0.68 and 0.91 mdaN).

(d) Hold the elbow connection below the floor with a spanner. Torque tighten the retaining nut above the floor to between 107 and 117 lbf in. (1.21 to 1.33 mdaN).

(3) Install the sink waste elbow floor connection:

(a) Remove the blanks, fit a washer to the elbow union and insert it through the appropriate hole in the floor from below.

(b) Fit a new sealing ring, washer and retaining nut to the elbow above the floor. Do not tighten the nut.

(c) Remove the blank and align the elbow union and the waste pipe below the floor. Slide the joint sleeve equipped with two worm-drive clips over the pipe joint; secure the joint sleeve with the clips.

(d) Fit an electrical bonding clip to the pipe at each side of the joint sleeve, and connect the clips with an electrical bonding lead in accordance with 20-27-11.

(e) Hold the elbow assembly below the floor with a spanner. Torque tighten the elbow retaining nut above the floor to between 645 and 655 lbf in (7.29 to 7.4 mdaN).

(4) Install the line drain floor connection:

(a) Remove the blanks, fit a washer to the line drain floor connection and insert it through the appropriate hole in the floor from below.

(b) Fit a new sealing ring, washer and retaining nut to the connection above the floor. Hold the connection below the floor with a spanner and torque tighten the retaining nut above the

floor to between 307 to 317 lbf in (3.48 to 3.58 mdaN).

(c) Remove the blank from the line drain pipe below floor, align the pipe with the connection and screw on the coupling nut. Torque tighten the nut to between 75 and 125 lbf in (0.85 to 1.41 mdaN).

(5) Install the tank drain control cable and conduit in accordance with 38-31-15, Removal/Installation, with the exception of the paragraph relating to the floor fitting which, in toilet No.3A, is mounted on a bracket inside the toilet compartment. Seal the control cable conduit to the drip tray (Ref. Fig. 407) as follows:

(a) Fit the grommet seal around the conduit and inside the drip tray flange.

(b) Fit the sleeve seal over the grommet seal and drip tray flange.

(c) Apply a bead of sealant PR 1422 to seal the sleeve, grommet seal and conduit.

E. Install Control Cable Bracket and Tank Mounting Brackets (Ref. Fig. 401)

(1) Fit the tank drain control cable bracket:

(a) Position the bracket over the spigots previously positioned in the seat rail.

(b) Fit a new seal washer and nut with captive washers. Torque tighten the nut to between 62 and 71 lbf in (0.70 and 0.80 mdaN).

(c) Encapsulate the nuts with PR 1422.

(2) Install the tank mounting brackets:

(a) Position the toilet tank rear mounting bracket with a new rubber washer interposed between the bracket and the drip tray at the outboard and inboard holes.

(b) Fit the special bolt for the electrical bonding lead, with a washer under the head, in the outboard hole. Do not tighten the bolt.

(c) Fit a long bolt, coated liberally with JC5A compound, and equipped with a washer, in the inboard hole. Torque tighten the bolt to between 35 and 44 lbf in (0.40 and 0.50 mdaN).

(d) Fit the wedge-shaped packing washer between the cable bracket and the tank mounting rear bracket. Secure it with a bolt and nut. Torque tighten the nut to between 31 and 40 lbf in (0.35 and 0.45 mdaN).

(e) Position the toilet tank forward mounting bracket with a new rubber washer interposed between the bracket and the drip tray at the mounting bolt holes in the floor.

(f) Fit the shortest bolt, equipped with a washer, in the left-hand arm of the cross member, and secure it to the bulkhead. Hand tighten only.

(g) Fit the next longest bolt, equipped with a washer, and coated liberally with JC5A compound on the threads and shank, in the right-hand arm of the cross member. Torque tighten the bolt to between 35 and 44 lbf in (0.40 and 0.50 mdaN).

(h) Fit the two longest bolts, equipped with washers, and coated liberally with JC5A compound on the threads and shank, in the mounting bracket. Torque tighten each bolt to between 35 and 44 lbf in (0.40 and 0.50 mdaN).

(j) With the exception of the special electrical bonding bolt in the right-hand bracket, encapsulate all the floor mounting bolts with sealant PR 1422BT.

F. Install Toilet Cabinet Frame (Ref. Fig. 406)

(1) Position the toilet cabinet frame and secure it to the aft transverse bulkhead at the following locations:

(a) Upper shelf flange - four screws.

(b) Outboard diaphragm - three screws.

(c) Lower diaphragm and angle below the waste bin hood - five screws.

(d) Central diaphragm - two screws.

Printed in England

(e) Cabinet bracket (attached to central diaphragm) - three screws.

(2) Secure the frame to the fore and aft bulkhead at the following locations:

(a) Upper door hinge tube - two screws.

(b) Waste bin hinge tube - two screws.

(3) Secure the outboard post to the sidewall with two studs and a screw.

G. Install Toilet Services Electrical Cable Loom

(1) Connect the electrical cable loom to the terminal block (UM 2234), located at frame 37, in accordance with Wiring Diagram Manual 91-17-18.

(2) Feed the loom between the top of the bulkhead and roof and secure it with P-clips to the bulkhead.

(3) Install the loudspeaker and loudspeaker transformer (Ref. 23-31-32, Removal/Installation).

(4) Install the toilet door microswitch (Ref. 33-22-00, Removal/Installation).

H. Connect Toilet System Pipes (Ref. Fig. 403)

(1) Install the gallery water pipe extension:

(a) Remove the ceiling panel in No.3 toilet by pulling down on the panel to release the spire fasteners (Ref. 25-41-17, Removal/Installation).

(b) Feed the pipe through the space at the top of the adjacent bulkheads.

(c) Remove the blank plug from the tee junction of the gallery pipe in the roof of No.3 toilet.

(d) Couple the flexible pipe to the tee junction and torque tighten the union nut to between 160 and 180 lbf in (1.81 and 2.03 mdaN).

(e) Replace the ceiling panel in No.3 toilet (Ref.25-41-17, Removal/Installation).

(2) Install cold water supply pipe run at inboard console position (Ref. Detail E):

Printed in England

(a) Position the pipe and couple the top end to the gallery pipe extension. Torque tighten the union nut to between 160 and 180 lbf in (1.81 and 2.03 mdaN).

(b) Secure the flexible section of the pipe to the brackets on the bulkhead with straps.

(c) Secure the bottom end of the pipe in a clamp to the bulkhead with washers and screws.

(3) Install bracket and cold water supply pipe (Ref. Detail A):

(a) Secure the bracket to the bulkhead with washers and screws.

(b) Position the pipe in the clamp block halves and loosely attach to the bracket on the bulkhead.

(c) Couple the top end of the pipe to the supply pipe union. Torque tighten the union nut to between 160 and 180 lbf in (1.81 and 2.03 mdaN).

(d) Tighten the clamp block screws.

(4) Install the cold water supply pipe to the line drain valve and water heater supply tee (Ref. Detail C):

(a) Position the bottom half of the pipe clamp block on the central diaphragm and support in position temporarily.

(b) Position the supply pipe on the clamp block. Couple the union nut to the cold water supply pipe at the top end. Torque tighten the union nut to between 160 and 180 lbf in (1.81 and 2.03 mdaN).

I. Install Wash Basin Assembly (Ref. Fig. 404)

(1) Position the wash basin assembly and secure the splashback to the bulkhead with four washers and screws.

(2) Secure the inboard end of the washbasin assembly to the fore and aft bulkhead with two washers and bolts.

NOTE: The bottom bolt is fitted with two washers.

(3) Secure the outboard end of the wash basin assembly to the lower sidewall with two washers and screws.

(4) Fit the inboard plinth cover to the inboard sub-assembly and secure it with a screw.

J. Connect Toilet/Wash Basin Piping (Ref. Fig. 403)

(1) Position the manifold assembly on the aft transverse bulkhead and secure it with screws and washers.

(2) Install the two air vent valves and associated pipes on the manifold (Ref. Detail D):

(a) Fit a new O-ring seal in each valve and, taking care not to overtighten, screw the valves into the manifold.

(b) Couple the pipelines to their unions, and, holding the union securely, torque tighten the nuts to between 130 and 150 lbf in (1.47 and 1.70 mdaN).

(3) Install the faucet cover and taps (Ref. 38-12-12, Removal/Installation).

(4) Position the waste connection assembly on the floor connection. Couple the union nut and torque tighten it to between 300 and 500 lbf in (3.39 and 5.65 mdaN).

(5) Install the waste pipe (Ref. Detail B and C):

(a) Fit a joint sleeve and two worm-drive clips on each end of the waste pipe.

(b) Position the waste pipe through the central diaphragm and on the clamp block.

(c) Align the top and bottom ends of the pipe with the sink waste stub and the waste connection assembly respectively. Slide the sleeves over the pipe joins and secure them with the worm-drive clips.

(6) Install the overflow pipe (Ref. Detail B):

(a) Fit a joint sleeve and two worm-drive clips at the top end of the overflow pipe.

(b) Position the pipe through the central diaphragm and on the clamp block.

(c) Align the top end of the pipe with the sink overflow stub. Slide the sleeve over the pipe joint at the overflow stub and tighten the worm-drive clips.

(d) Fit a P-clip to the pipe and secure it to the lower diaphragm with a bolt and nut.

(7) Install the water overflow valve (Ref. 38-31-18, Removal/Installation).

(8) Install the line drain valve (Ref. Fig. 403):

(a) Position the valve on the floor connection and secure the valve with the union nut. Torque tighten the nut to between 40 and 65 lbf in (0.45 and 0.73 mdaN).

(9) Install the cold tap supply pipe (Ref. Detail C):

(a) Position the pipe through the central diaphragm and on the clamp block.

(b) Couple the supply pipe to the tap inlet. Torque tighten the nut to between 160 and 180 lbf in (1.81 and 2.03 mdaN).

(10) Install the water heater (Ref. 38-12-11, Removal/Installation).

(11) Install the heater cold water inlet pipe (Ref. Fig. 403):

(a) Position the pipe complete with the tee union on the line drain valve and couple the tee union to the valve with the union nut. Torque tighten the nut to between 40 and 65 lbf in (0.45 and 0.73 mdaN).

(b) Couple the pipe to the heater inlet tee with the union nut. Torque tighten the nut to between 160 and 180 lbf in (1.81 and 2.03 mdaN).

(12) Install the sluice and charge pipe (Ref. Details B and C):

(a) Fit a joint sleeve and two worm-drive clips to the pipe.

(b) Position the pipe in the clamp block and align the bottom end of the pipe with the floor

connection assembly. Slide the sleeve over the join and secure it with the worm-drive clips.

(c) Couple the top end of the pipe to the elbow union. Torque tighten the nut to between 300 and 500 lbf in (3.39 and 5.65 mdaN).

(13) Install the air pipe (Ref. Detail C):

(a) Position the pipe on the clamp block and align it with the floor connection assembly.

(b) Couple the pipe to the floor connection with the union nut. Torque tighten the nut to between 60 and 80 lbf in (0.68 and 0.90 mdaN).

(14) Install the toilet flush air valve (Ref. 38-41-15, Removal/Installation).

(15) Fit the top half of the clamp block over the pipes and secure the clamp block to the central diaphragm with washers and bolts. (Ref. Detail C).

(16) Electrically bond the pipes to the central diaphragm with pipe clips, bonding leads, bolts, washers and nuts in accordance with 20-27-11.

(17) Install the toilet tank (Ref. 38-31-11, Removal/ Installation) and connect the electrical bonding lead to the special outboard bolt on the rear tank mounting bracket in accordance with 20-27-11. Encapsulate the bolt head with sealant PR 1422 BT.

K. Install Toilet Furnishings (Ref. Fig. 402)

(1) Install the upper sidewall panel:

(a) Position the panel and secure it to the angles on the forward and aft bulkheads by pressing the spire fasteners into their receptacles.

(b) Secure the panel cut-out to the air duct connector with washers and screws.

(c) Secure the bottom edge of the upper sidewall panel to the top edge of the lower sidewall panel with washers and screws.

(d) Secure the top edge of the panel to the ceiling support structure with washers and bolts.

(2) Install the right-hand backrest panel:

(a) Fit the panel by feeding the toilet flush control cable through the grommet in the lower sidewall panel. Slide the panel to the right to engage the retaining lip at the panel cut-out.

(b) Secure the right-hand edge of the panel with four washers and screws, and the left-hand edge of the panel with three washers and screws.

(c) Connect the control cable to the toilet flush air valve (Ref. 38-41-15, Removal/Installation).

(3) Install the left-hand backrest panel:

(a) Position the panel by engaging the spigots on its left-hand edge with their receptacles in the forward transverse bulkhead.

(b) Secure the right-hand edge of the panel with washers and screws.

(4) Install the centre backrest panel:

(a) Position the hinged panel in the opened condition, and secure the hinges on its bottom edge to the hinge rail with screws.

(b) Fit the used-towel bin in the recess, close the panel and press to engage the spire fasteners, at each side, in their receptacles.

(5) Fit the support tray for the sanitary napkin disposal box inside the toilet cabinet frame, and secure it with four screws.

(6) Install the wc top and front covers (Ref. 25-41-14, Removal/Installation).

(7) Install the air extraction grille:

(a) Position the grille and press in to engage the spire fasteners in their receptacles.

(8) Position all the toilet cabinet doors and secure them to the toilet cabinet frame with screws through hinges on their bottom edge.

(9) Fit the disposal bins as appropriate; close and secure the doors as follows:

(a) Waste bin door. Insert waste bin, close the door and check that the press to release catch engages correctly and that the spring loaded stop operates when the door is opened.

(b) Water heater access door. Secure with a washer and bolt at the top of the door.

(c) Deodorizer pack door. Secure with two washers and bolts at the top of the door.

(d) Sanitary napkin disposal door. Insert the disposal bin, close the door and check that the magnetic catch retains the door.

(e) Upper door. Close the door and check that the press to release catches at each end engage correctly.

(10) Position the outboard console assembly on the sanitary napkin dispenser. Secure the console to the napkin dispenser and to the aft transverse bulkhead with screws.

(11) Remove the plastic bags from the connectors and install the oxygen mask stowage in the outboard console (Ref. 35-21-15, Removal/Installation).

L. Install Electrical Services

(1) Horizontal strip light:

(a) Secure the backplate assembly, slot uppermost, to the aft transverse bulkhead with screws.

(b) Connect the electrical cables, from the fluorescent tube holder on the backplate, to the cable loom with in-line splices, in accordance with Wiring Diagram Manual 91-17-18.

(c) Fit the upper edge of the translucent cover in the slot on the backplate and secure its bottom edge with washers and screws.

(2) Install the STEWARD CALL lamp/switch (Ref. 33-27-00, Removal/Installation).

(3) Install the RETURN TO SEAT sign (Ref. 33-25-00, Removal/Installation).

(4) Install the razor socket (Ref. 25-41-00, Removal/

Installation).

M. Complete Toilet Furnishing (Ref. Fig. 402)

(1) Install the inboard console (Ref. 25-41-15, Removal/ Installation).

(2) Install the mirror (Ref. 25-41-12, Removal/ Installation).

(3) Install the cosmetic stowage:

(a) Position the cosmetic stowage so that the keyhole slots in the stowage engage with the mounting screws on the bulkhead. Lower the stowage until the spring clip at the top of the stowage engages.

N. Install Drip Tray, Panels and Door

(1) Install the standing area drip tray (Ref. 25-41-16, Removal/Installation).

(2) Refit the toilet ceiling panel (Ref. 25-41-17, Removal/Installation).

(3) Refit the aisle ceiling panel (Ref. 25-21-12, Removal/Installation).

(4) Refit the toilet door (Ref. 52-51-21, Removal/ Installation).

(5) Refit access panel 132 VS in the lower baggage compartment.

O. Install Emergency Equipment

(1) Install the emergency pack and inflation bottle support structure (Ref. 25-65-16, Removal/ Installation).

(2) Install the inflation bottle for the intermediate service door slide/raft (Ref. 25-65-14, Removal/ Installation).

(3) Install the emergency pack (Ref. 25-62-12, Removal/ Installation).

P. Conclusion

(1) Reset the circuit breakers previously tripped.

(2) Replenish the fresh water system in accordance with 38-11-00, Servicing.

(3) Test No.3A toilet wash system (Ref. 38-12-00, Adjustment/Test).

(4) Charge the toilet tank with sanitary fluid (Ref. 12-16-38).

(5) Test the toilet tank (Ref. 38-31-11, Adjustment/ Test.

(6) Test the toilet lighting (Ref. 33-22-00, Adjustment/ Test).

(7) Test the toilet signs (Ref. 33-25-00, Adjustment/ Test).

(8) Test the call system (Ref. 33-27-00, Adjustment/ Test).

(9) Test the toilet oxygen system (Ref.35-21-15, Adjustment/Test).

Printed in England

**ON A/C 006-007,
TOILET NO.3A (MODULAR) - REMOVAL/INSTALLATION

WARNING: OXYGEN SYSTEM: MANY MATERIALS, PARTICULARLY PAINT OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. TO AVOID THE RISK OF FIRE OR EXPLOSION IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT AND SURROUNDINGS CLEAN AND FREE FROM CONTAMINATION.

OBSERVE THE OXYGEN SAFETY PRECAUTIONS DETAILED IN 35-00-00, SERVICING.

OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

R B. Mod 25C517 removes the No. 3A toilet.
The toilet, situated in the intermediate vestibule on the right-hand side, is partially built in a jig as a module (Ref. Fig. 404) to simplify its installation and removal from the aircraft. The module comprises a transverse bulkhead and a fore and aft bulkhead assembled together complete with a sink unit, inboard and outboard consoles, and all the associated plumbing and electrical services ready for connection to the aircraft services following installation of the module, the remaining transverse bulkhead is positioned in the aircraft, the drip trays installed, the services are connected and the WC toilet tank assembly and remaining trim panels are installed to complete the toilet.

2. Toilet Removal

A. Equipment and Material.

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Torque spanners 0-700 lbf in (0-8 mdaN) range	-
Waterproofed fabric sealing tape CM717 - 2 in (50mm) (Ref.20-30-00, No.161)	-
Elastometric compound (CM718) (Ref. 20-30-00, No.162)	-

DESCRIPTION	PART NO.
Sealant PR1422, (Ref.20-30-00 No.358)	-
Brushing sealant PR1422 BT, (Ref.20-30-00, No.357)	-
Sealant JC-5A (Ref.20-30-00, No.382)	-
Bostik 2402 (Ref.20-30-00, No.328)	-
General purpose cleaning solvent BACM302 (Ref.20-30-00, No.473)	-

B. Prepare

(1) Drain the water system (Ref.12-36-00).

(2) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
CTR RH FWD TOILET WATER HTR SUP	14-216	M226	A17
TOILET MAIN LTS SUP	14-216	L985	C10
CABIN NIGHT LTS SUP	5-213	L455	D19
PA SUP	1-213	R139	K20
PASS CALL SUP	15-216	M78	A22
FASTEN S/BELTS SUP	1-213	W191	L 8
RAZOR OUTLET SUP	15-215	M211	G 5

C. Remove WC Assembly and Associated Furnishing Trim (Ref. Fig. 401)

(1) Remove the toilet door (Ref.52-51-21, Removal/

Installation).

(2) Remove the WC bench unit (Ref.25-41-14, Removal/ Installation).

(3) Remove the WC toilet tank (Ref.38-31-11, Removal/ Installation).

(4) Remove the sealant, the sleeve seal and the grommet seal around the tank drain control cable conduit, at the inlet point on the drip tray.

(5) Remove the toilet tank drain control cable and conduit in accordance with 38-31-15, Removal/ Installation, with the exception of the paragraph referring to the floor fitting which, in toilet No.3A, is mounted on the teleflex control cable bracket inside the toilet compartment.

(6) Remove the sealant encapsulating the bolts and remove the bolts and washers securing the tank forward mounting bracket to the floor and to the forward bulkhead. Remove the mounting bracket and recover the rubber sealing washers interposed between the bracket and the drip tray.

(7) Remove the tank drain control cable mounting bracket:

(a) Cut the locking wire, and unscrew the bolts securing the teleflex conduit end-fitting to the mounting bracket. Remove the teleflex assembly from the bracket.

(b) Remove the nut, bolt and packing washer securing the control cable mounting bracket to the tank rear mounting bracket.

(c) Remove the sealant encapsulating the nuts, and remove the nuts and seal washers securing the control cable mounting bracket to the spigots in the seat rails. Remove the bracket.

(8) Remove the sealant encapsulating the bolts and remove the bolts and washers securing the tank rear mounting bracket to the floor. Note the position of the special bolt for the bonding lead. Remove the bracket and recover the rubber washers interposed between the bracket and the drip tray.

(9) Remove the air extraction grille above the WC backrest by pulling the grille inboard to release the spire

fasteners from their receptacles. Remove the grille.

(10) Remove the centre backrest panel:

(a) Hinge downward the spring-hinged top section of the backrest panel.

(b) Hold the panel at each side and pull it inboard to release the spire fasteners securing the top edges of the lower section. Hinge the panel down and remove the used-towel bin located behind the panel.

(c) Remove the screws securing the hinges; remove the backrest panel.

(11) Remove the left-hand backrest panel:

(a) Remove the screws and washers securing the right-hand edge of the panel.

(b) Slide the panel to the right to release the spigots from the bulkhead inserts; remove the panel.

(12) Remove the right-hand backrest panel:

(a) Disconnect the toilet flush control cable from the air valve (Ref.38-41-15, Removal/Installation).

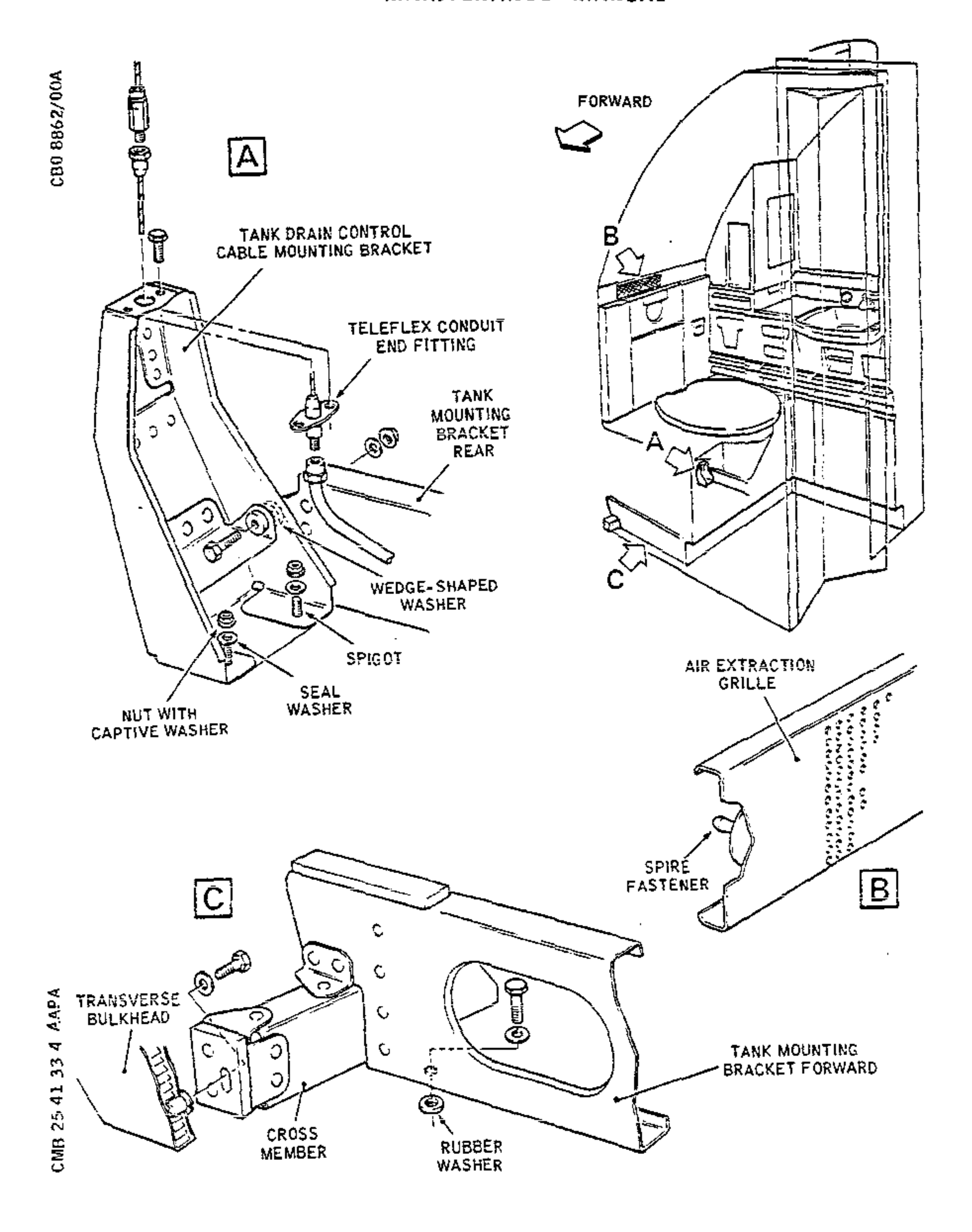
(b) Remove the four screws securing the top edge of the sanitary napkin disposal box support tray located inside the toilet cabinet assembly; remove the tray.

<u>NOTE</u>: Access to the screws is through the toilet cabinet opening.

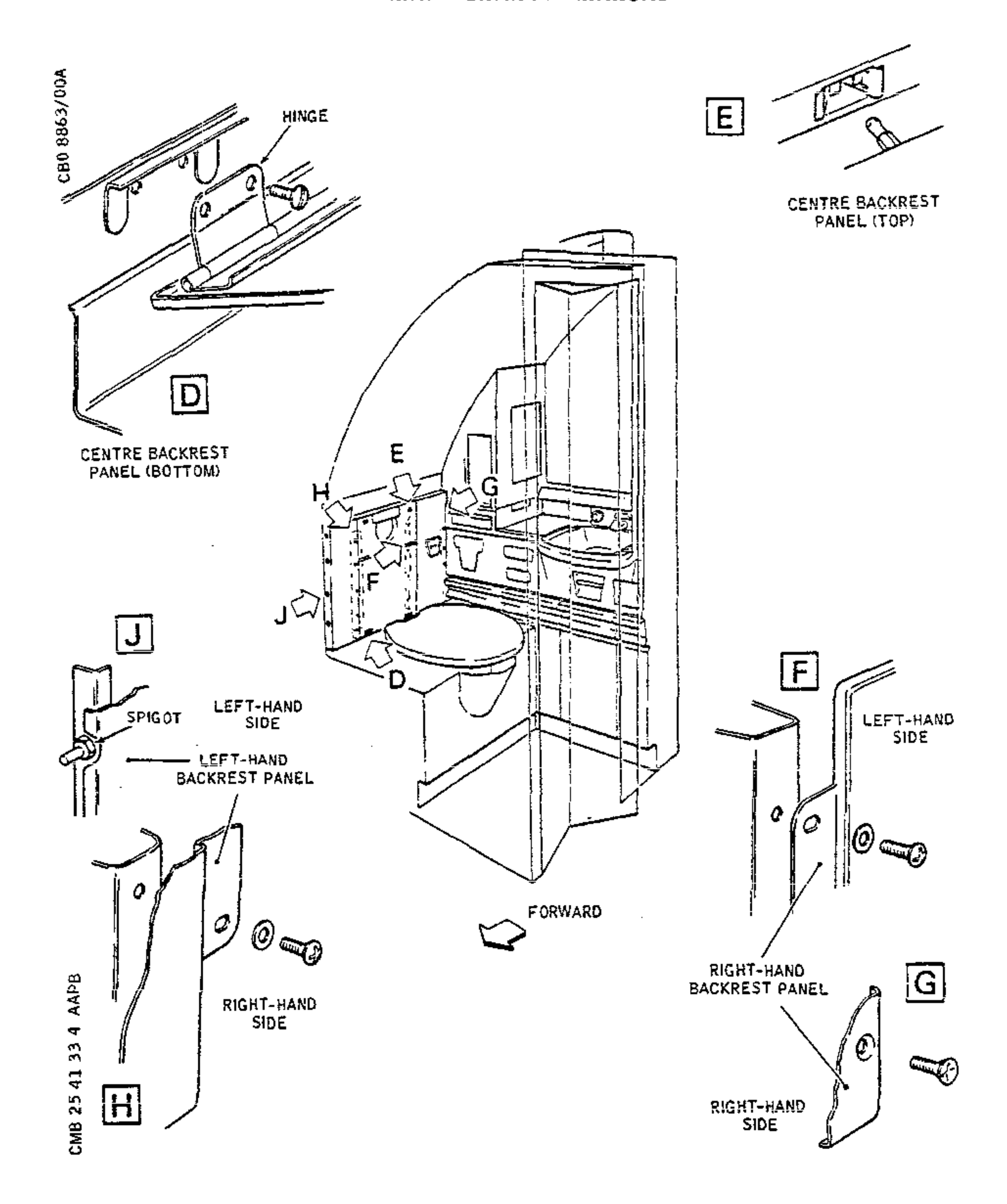
(c) Remove the screws and washers securing the left and right hand edges of the panel. Slide the panel to the left to disengage the retaining lip at the panel cut-out and remove the panel, at the same time feeding the toilet flush control cable through the grommet in the lower sidewall panel.

D. Remove the Panels and Furnishings (Ref. Fig. 402)

(1) Remove the toilet mirror (Ref.25-41-12, Removal/Installation).



WC Assembly and Associated Furnishing
Trim Installation (Sheet 1 of 2)
Figure 401



WC Assembly and Associated Furnishing
Trim Installation (Sheet 2 of 2)
Figure 401

(2) Remove the toilet ceiling panel (Ref.25-41-17, Removal/Installation).

(3) Remove the outboard console temporarily in order to remove the upper sidewall panel:

(a) Remove the oxygen mast stowage (Ref. 35-21-15, Removal/Installation). Cover the connectors with clean plastic bags.

(b) Remove the screws securing the console to the bulkhead and to the sanitary napkin dispenser assembly; remove the outboard console.

(4) Remove the upper sidewall panel:

(a) Remove the screws and washers securing the panel cut-out to the air duct connector.

(b) Remove the bolts and washers securing the top edge of the panel to the ceiling support structure.

(c) Remove the bolts and washers securing the bottom edge of the panel to the lower sidewall panel.

(d) Carefully pull each side of the upper sidewall panel inboard to release the spire fasteners securing the panel to the bulkhead angle; remove the panel.

(5) Refit the outboard console to the bulkhead and secure it with bolts.

(6) Remove the lower sidewall panel:

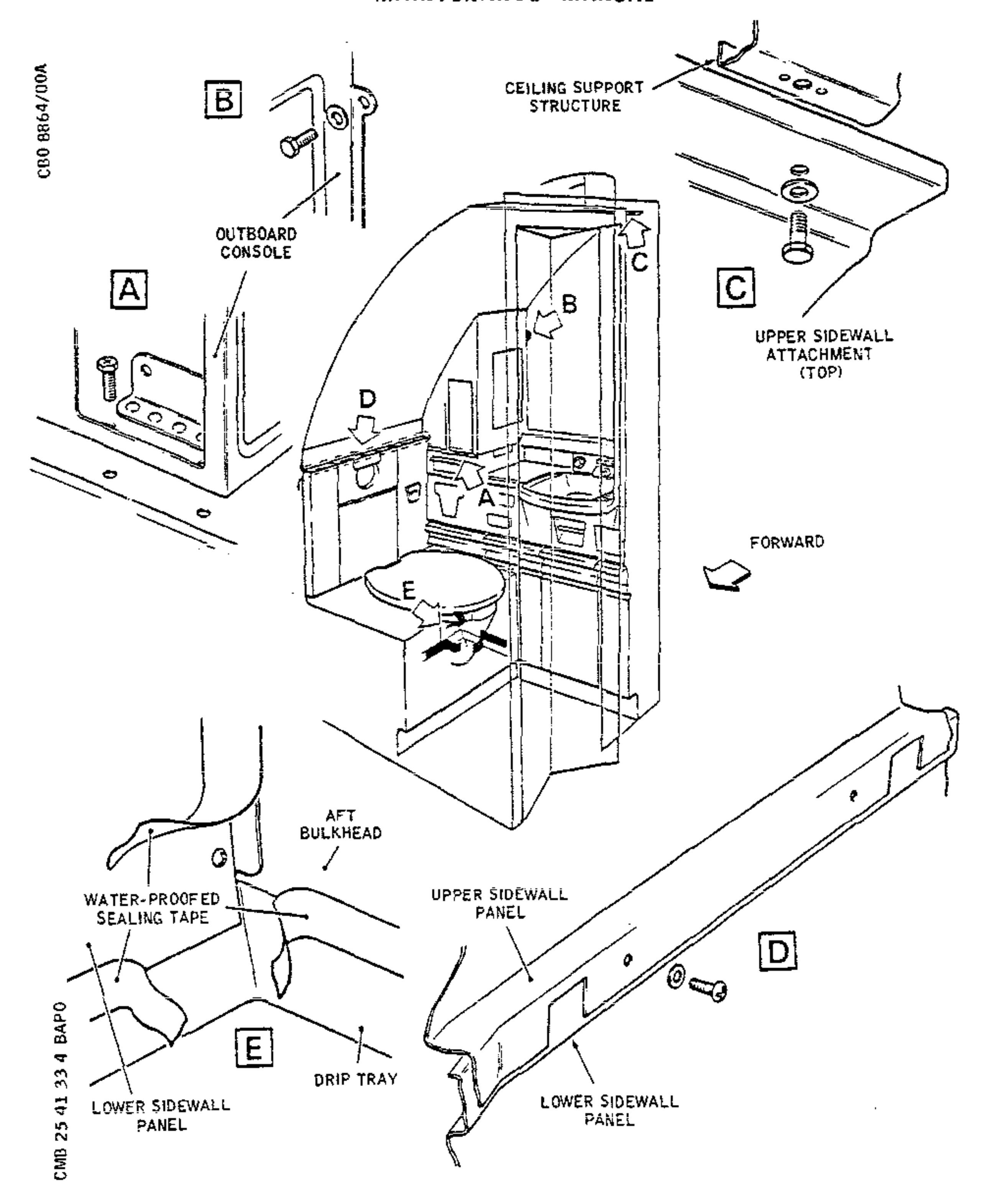
(a) Strip away the waterproofed sealing tape at each corner below toilet seat level, and the tape sealing the bottom edge of the sidewall to the drip tray.

(b) Remove the screws and washers securing each vertical edge of the panel to the angles on the transverse bulkheads; remove the sidewall.

E. Remove Toilet Drip Trays (Ref. Fig. 403)

(1) Remove the standing area drip tray (Ref.25-41-16, Removal/Installation).

(2) Disconnect the pipes at floor level:



Toilet Furnishing Panels, Installation
Figure 402

(a) Slacken the worm-drive clips and slide the joint sleeve clear of the join of the sluice and charge pipe stub at floor level.

(b) Unscrew the coupling nut securing each of the waste connection, line drain and air connection pipes to their connection stubs at floor level.

(3) Remove the outboard drip tray:

NOTE: The drip tray is secured by the retaining nuts, washers and seals for the waste, air, line drain and the sluice and charge pipe floor connections. An assistant is therefore required to hold the connection below the floor with a suitable spanner to prevent the assembly from turning when removing the retaining nut.

(a) Open access panel 132VS inside the lower baggage compartment.

(b) Below the floor restrain the waste, air, line drain and the sluice and charge pipe below floor connections with a spanner, then unscrew each retaining nut above floor in turn and remove the washer and sealing ring on each pipe connection stub.

(c) Carefully sever the seal made by the bead of sealant between the flange of the drip tray and the toilet tank drain pipe.

(d) Strip away the sealing tape covering the drip tray clamp strips on the bulkheads.

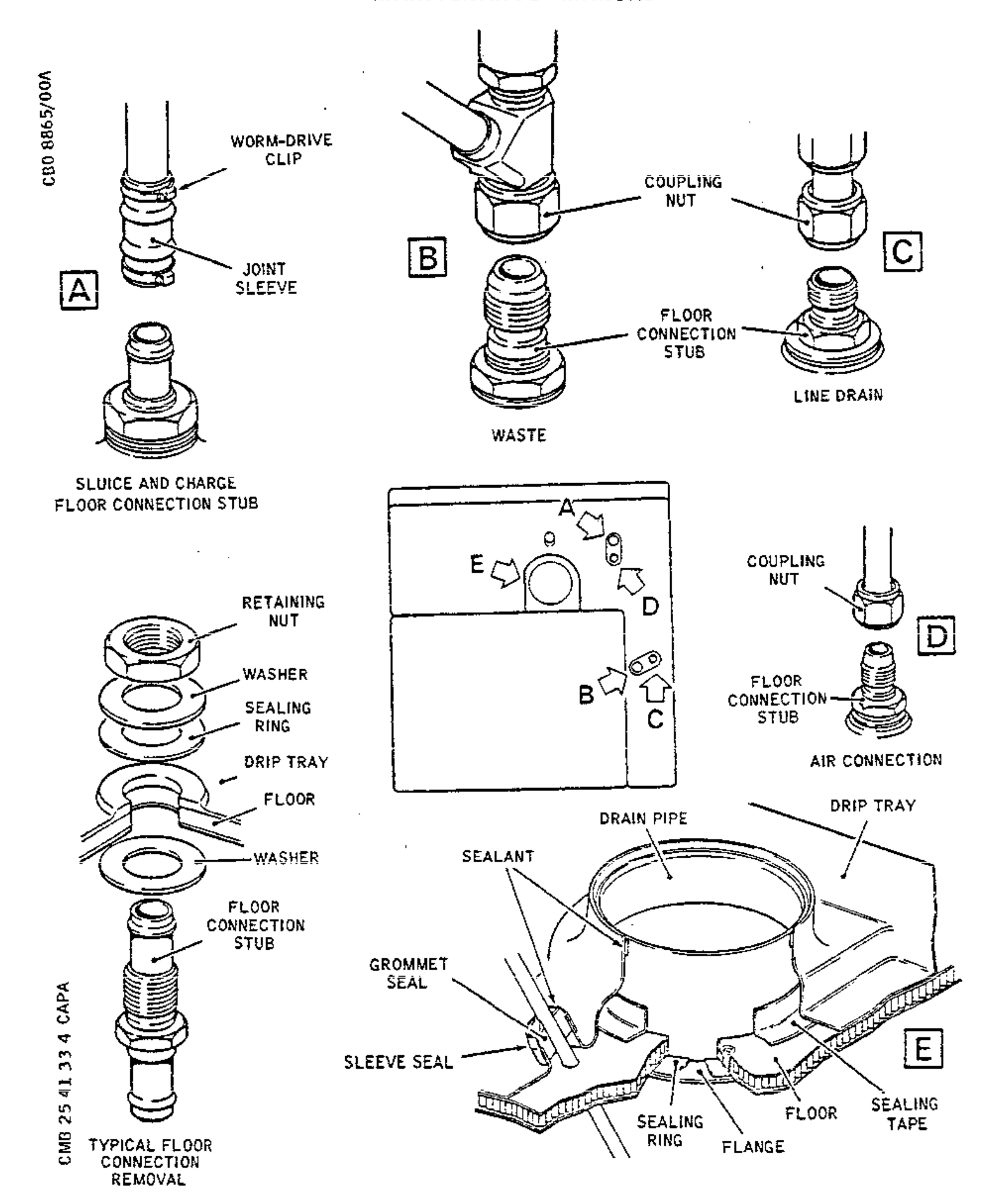
(e) Remove the screws securing the drip tray clamp strips to the bulkheads; remove the clamp strips.

(f) Strip away the sealing tape at the drip tray to floor junction.

(g) Remove the screws and washers securing the waste bin hinge tube to the central diaphragm.

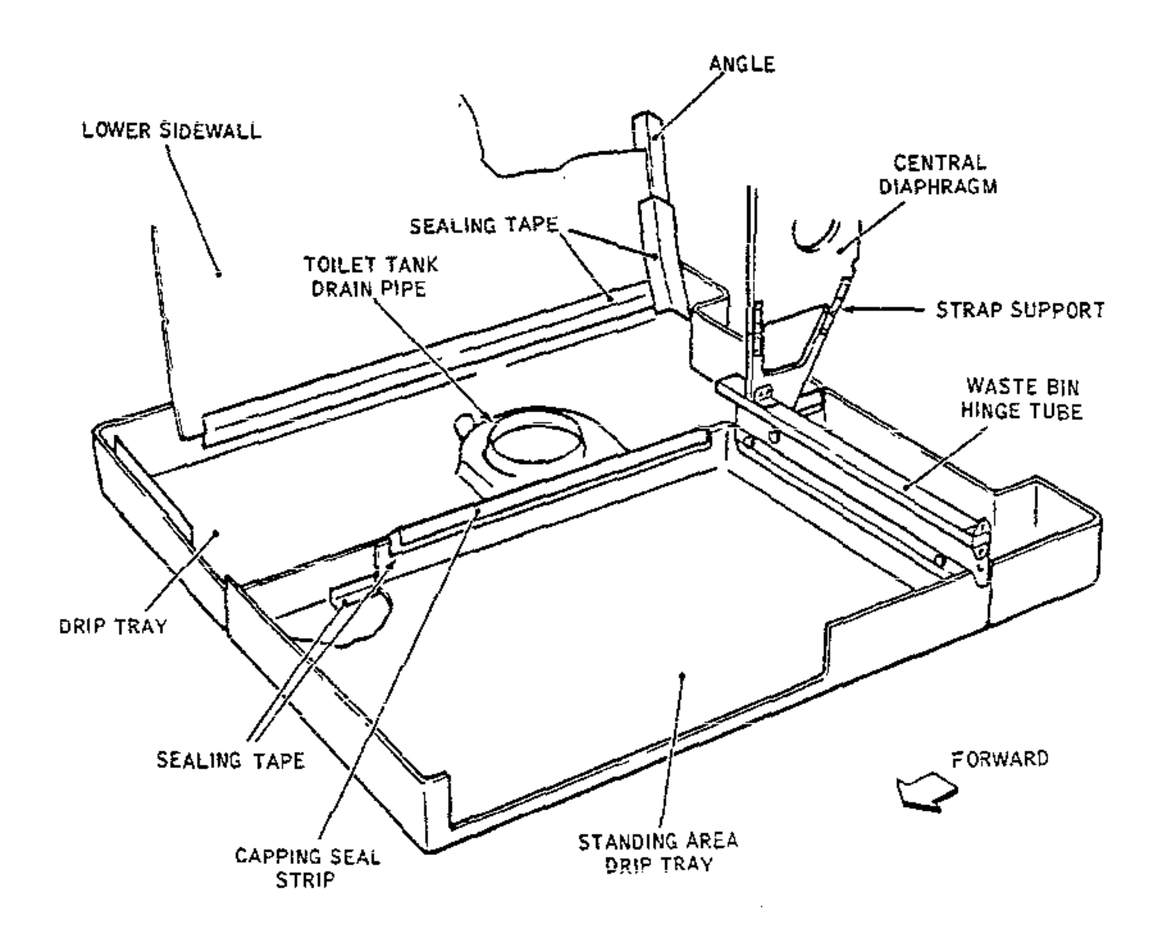
(h) Remove the screws securing the lower part of the central diaphragm to the cabinet bracket.

(i) Remove the screws from the strap supports which secure the two parts of the central diaphragm



Toilet Drip Trays, Installation
(Sheet 1 of 2)
Figure 403

CBO 8866/00A



CMB 25 41 33 4 CAPB

Toilet Drio Trays, Installation
(Sheet 2 of 2)
Figure 403

together, and remove the lower part of the diaphragm.

(j) Manipulate the drip trays to clear the floor pipe connection stubs.

NOTE: It may be necessary to press the stubs gently downward to obtain sufficient clearance to remove the tray.

F. Disconnect, Water and Electrical Services (Ref. Fig. 404)

(1) Remove the gangway ceiling panel (Ref. 25-21-12, Removal/Installation).

(2) Remove the cold water supply gallery pipe extension (Ref. Fig. 404):

(a) Unscrew the union nut at the top of the flexible pipe located inside the inboard console (Ref. Detail C).

(b) Remove the No.3 toilet ceiling panel (Ref. 25-41-17, Removal/Installation).

(c) Unscrew the union nut coupling the extension pipe at the gallery pipe Tee junction. Remove the extension pipe and fit blank covers to the pipe ends (Ref. Detail B).

(d) Refit the ceiling panel in No.3 Toilet (Ref. 25-41-17, Removal/Installation).

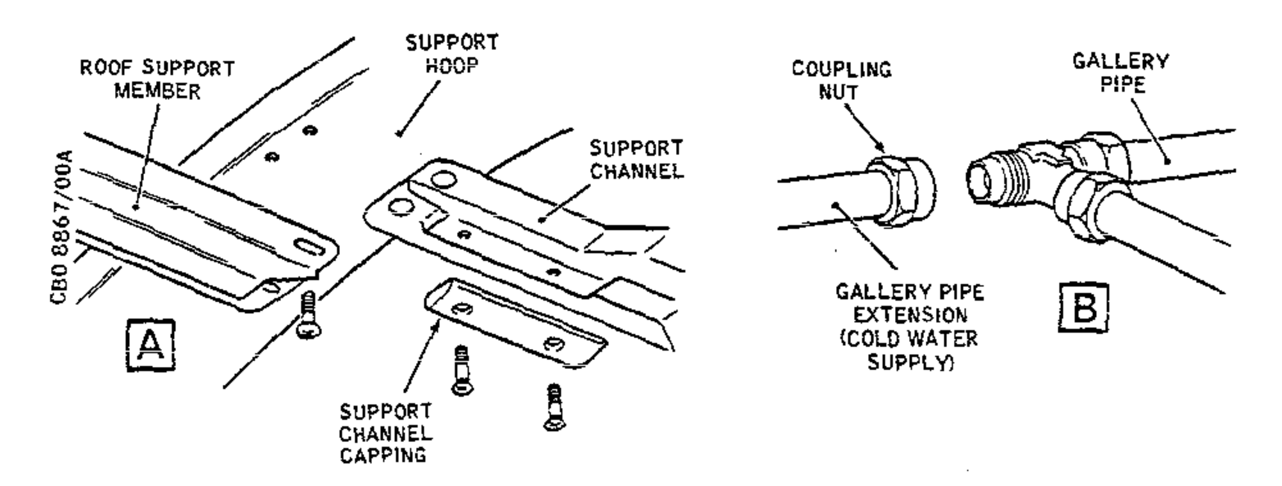
(3) Disconnect the toilet electrical services loom from terminal block UM2234 situated at frame 37 in the roof.

(4) Remove the bolts and washers securing the roof support member assemblies to allow removal of the toilet module. Remove the support members (Ref. Fig. 404).

G. Remove Toilet Forward Bulkhead (Ref. Fig. 404)

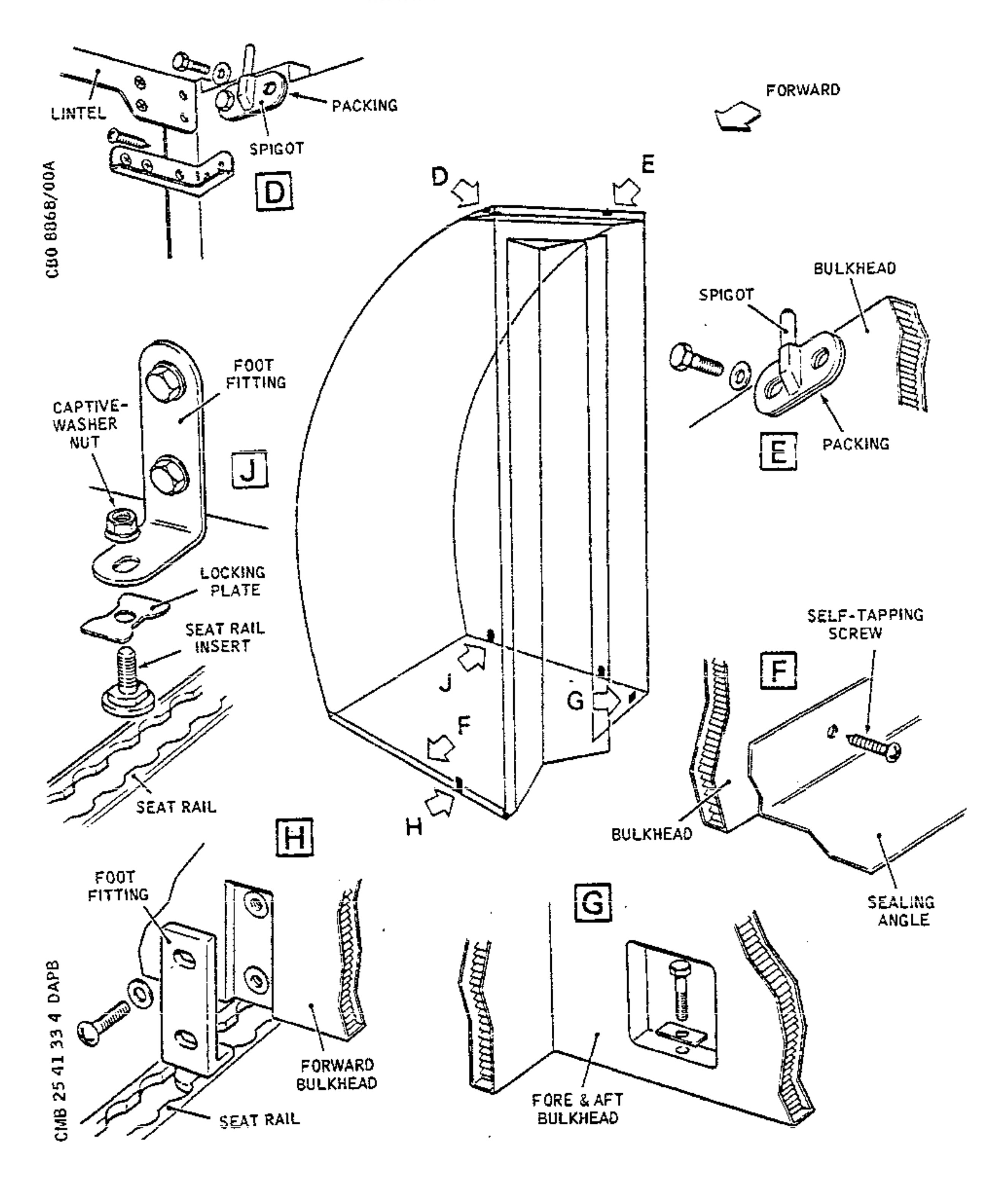
(1) Remove the emergency pack forward of the toilet (Ref.25-62-12, Removal/Installation).

(2) Remove the inflation bottle, for the intermediate service door slide/raft, located forward of the toilet (Ref. 25-65-14, Removal/Installation).



FORWARD
OUTBOARD CONSOLE
B
A
FORE & AFT BULKHEAD
C
SINK UNIT
SLUICE & CHARGE PIPE
AIR PIPE
WATER HEATER
LINE DRAIN VALVE
WASTE PIPE
FORWARD BULKHEAD
CMB 25 41 33 4 DAPA
INBOARD CONSOLE
C

NO 3A Toilet Module, Installation
(Sheet 1 of 2)
Figure 404



NO 3A Toilet Module, Installation
(Sheet 2 of 2)
Figure 404

(3) Remove the emergency pack and inflation bottle support tray (Ref.25-65-16, Removal/Installation).

(4) Remove the bulkhead:

(a) Carefully remove the glued on trim strip covering the join between the forward bulkhead and the fore and aft bulkhead lintel.

(b) Remove the self-tapping screws securing the end of the lintel to the forward bulkhead (Ref. Detail D).

(c) Remove the screws securing the sealing angle to the bottom rear face of the forward bulk-head. Remove the sealing angle (Ref. Detail F).

(d) Remove the screws and washers securing the foot fitting to the forward face of the bulkhead. Remove the foot fitting from the seat rail (Ref. Detail H).

(e) Support the bulkhead and remove the bolts and washers securing the spigot at the top of the bulkhead (Ref. Detail D). Remove the spigot from the fitting on the fuselage structure, and the bulkhead. Note the thickness of the packing.

(f) Remove the bulkhead.

H. Remove Toilet Module (Ref. Fig. 404)

(1) Remove the bolt and washer securing the fore and aft bulkhead to the floor (Ref. Detail G).

(2) Remove the captive-washer nuts securing the aft bulkhead foot fittings to the inner and outer seat rail inserts (Ref. Detail J).

(3) Support the module, remove the bolts and washers securing the spigot to the top of the fore and aft bulkhead (Ref. Detail E). Remove the spigot from the fitting on the fuselage structure and recover the packing between the spigot and the bulkhead. Note the thickness of the packing.

(4) Remove the bolts and washers securing the foot fittings to the aft bulkhead (Ref.Detail J). Remove the foot fittings and recover the locking plates and inserts from the seat rails.

(5) Remove the module.

(6) Clean the old sealant from the bulkheads and the floor with a cleaning solvent.

(7) Ensure that the seat rails and the floor in the vicinity of the toilet are clean and undamaged.

3. Toilet Installation

A. Install Toilet Module (Ref. Fig. 404)

(1) Observe the electrical safety precautions.

(2) Locate the seat rail inserts and locking plates in the seat rails (Ref. Detail J).

(3) Position the module, fit the foot fittings on the seat rail inserts and secure the foot fittings to the aft bulkhead with washers and bolts. Secure the foot fittings to the seat rail inserts with captive washer nuts (Ref. Detail J).

(4) Secure the fore and aft bulkhead to the floor with a washer and bolt (Ref. Detail G).

(5) Fit the spigot into the fuselage structure fitting and position the packing, previously removed, between the spigot and the fore and aft bulkhead. Secure the spigot to the bulkhead with washers and bolts (Ref. Detail E).

(6) Position the lower sidewall panel and secure the right-hand vertical edge to the aft bulkhead angle with washers and screws.

B. Install Toilet Forward Bulkhead (Ref. Fig. 404)

(1) Position the bulkhead. Secure the left-hand vertical edge of the lower sidewall to the forward bulkhead angle with washers and screws.

NOTE: Position the toilet door at this stage to ensure correct clearances and even gaps between door and frame.

(2) Secure the lintel of the fore and aft bulkhead to the forward bulkhead with self-tapping screws (Ref. Detail D).

(3) Fit the spigot into the fuselage structure fitting,

position the packing, previously removed, between the spigot and the forward bulkhead. Secure the spigot to the bulkhead with washers and screws (Ref. Detail D).

(4) Locate the foot fitting in the inner seat rail and secure it to the bulkhead with washers and screws (Ref. Detail H).

(5) Fit the sealing angle to the bottom, aft face of the forward bulkhead. Secure the angle to the bulkheaad with screws (Ref. Detail F).

(6) Cover the join between the forward bulkhead and the lintel with a trim strip. Secure the trim strip with Bostik 2402 adhesive.

(7) Seal the aft bulkhead and the fore and aft bulkhead to floor interfaces with a bead of sealant PR 1422.

C. Install Toilet Drip Trays (Ref. Fig. 403)

CAUTION: THE HIGHEST STANDARD OF DRIP TRAY SEALING MUST BE MAINTAINED TO MINIMIZE THE RISK OF POSSIBLE DAMAGE TO THE UNDERFLOOR EQUIPMENT AND STRUCTURE IN THE EVENT OF FLUID SPILLAGE WITHIN THE TOILET AREA.

NOTE: Where pipe assemblies pass through the floor, wet assemble in accordance with 20-22-12.

An assistant is required to hold each pipe connection below floor with a suitable spanner to prevent the connection from turning when the retaining nut is tightened.

Assemble pipes and couplings in accordance with 20-23-11 and 20-23-12.

(1) Install the outboard drip tray:

(a) Position the toilet tank drain control cable bracket mounting spigots, lock plates and packing in the seat rail.

(b) Fit the drip tray over the toilet drain control cable support bracket mounting spigots and the following through-floor pipe connection stubs:

- toilet tank drain pipe
- waste pipe

- line drain pipe
- air connection pipe
- sluice and charge pipe

(c) Align the holes in the drip tray with holes in the floor for the tank mounting bracket bolts; temporarily secure the tray with bolts.

(d) Fit a sealing ring, washer and retaining nut to each of the waste, line drain, air connection and sluice and charge pipe connection stubs.

(e) Open access panel 132VS inside the lower baggage compartment. Hold the floor pipe connection stub below floor with a spanner and torque-tighten the retaining nut above floor as follows:

- Waste pipe and sluice and charge pipe, 650 ± 5 lbf in (7.345 ± 0.057 mdaN).

- Line drain pipe, 312 ± 5 lbf in (3.526 ± 0.057 mdaN).

- Air connection pipe, 112 ± 5 lbf in (1.265 ± 0.057 mdaN).

(f) Seal the drip tray to the toilet tank drain pipe by applying a bead of sealant PR1422 at the lip between the drip tray flange and the drain pipe.

(g) Apply waterproofed fabric sealing tape (CM717) across the bottom of the sidewall panel to cover the join at the drip tray, overcoat the tape with elastomeric compound (CM718).

(h) Seal the drip tray to the bulkheads with clamp strips positioned over the join on the fore and aft bulkhead and the transverse bulkheads. Secure the clamp strips with screws, cover the clamp strips with waterproofed fabric sealing tape (CM717) and overcoat the tape with elastomeric compound (CM718).

(i) Apply a strip of waterproofed fabric sealing tape (CM717) from the bottom of the sidewall at each corner to the approximate level of the toilet seat.

NOTE: Areas of drip tray flange which are cut

Printed in England

away below normal height, or are difficult to seal satisfactorily with tape, are to be sealed with a bead of sealant PR1422 and covered with sealing tape (CM717) overcoated with elastomeric compound (CM718).

(j) Apply a strip of waterproofed fabric sealing tape (CM717) from the side of the drip tray to the floor on the remaining exposed sides of the drip tray overcoat the tape with elastomeric compound (CM718).

(2) Install the standing area drip tray (Ref.25-41-16, Removal/Installation).

(3) Remove the blank covers and align the sluice and charge pipe with the floor connection stub. Slide the joint sleeve over the join and secure it with a worm-drive clip at each end.

(4) Remove the blank covers and align the waste connection with the floor connection stub. Screw on the coupling nut and torque tighten it to between 300 and 500 lbf in. (3.39 and 5.65 mdaN).

(5) Remove the blank covers and align the line drain pipe with the floor connection stub. Screw on the coupling nut and torque tighten it to between 40 and 65 lbf in. (0.45 and 0.73 mdaN).

(6) Remove the blank covers and align the air connection pipe with the floor connection stub. Screw on the coupling nut and torque tighten it to between 60 and 80 lbf in. (0.68 and 0.90 mdaN).

(7) Position the lower part of the central diaphragm in the toilet cabinet and secure it to the upper part of the diaphragm with strap supports secured with screws.

(8) Secure the lower part of the diaphragm to the cabinet bracket with screws.

(9) Secure the waste bin hinge tube to the central diaphragm with washers and screws.

D. Install Control Cable Bracket and Tank Mounting Brackets (Ref. Fig. 401)

(1) Fit the tank drain control cable bracket:

Printed in England

(a) Position the bracket over the spigots previously positioned in the seat rail.

(b) Fit a new seal washer and nut with captive washers. Torque tighten the nut to between 62 and 71 lbf in (0.70 and 0.80 mdaN).

(c) Encapsulate the nuts with PR 1422.

(2) Install the tank mounting brackets:

(a) Position the toilet tank rear mounting bracket with a new rubber washer interposed between the bracket and the drip tray at the outboard and inboard holes.

(b) Fit the special bolt for the electrical bonding lead, with a washer under the head, in the outboard hole. Do not tighten the bolt.

(c) Fit a long bolt, coated liberally with JC5A compound, and equipped with a washer, in the inboard hole. Torque tighten the bolt to between 35 and 44 lbf in (0.40 and 0.50 mdaN).

(d) Fit the wedge-shaped packing washer between the cable bracket and the tank rear mounting bracket. Secure it with a bolt and nut. Torque tighten the nut to between 31 and 40 lbf in (0.35 and 0.45 mdaN).

(e) Position the toilet tank forward mounting bracket with a new rubber washer interposed between the bracket and the drip tray at the mounting bolt holes in the floor.

(f) Fit the shortest bolt, equipped with a washer, in the left-hand arm of the cross member, and secure it to the bulkhead. Hand tighten only.

(g) Fit the next longest bolt, equipped with a washer, and coated liberally with JC5A compound on the threads and shank, in the right-hand arm of the cross member. Torque tighten the bolt to between 35 and 44 lbf in (0.40 and 0.50 mdaN).

(h) Fit the two longest bolts, equipped with washers, and coated liberally with JC5A compound on the threads and shank, in the mounting bracket. Torque tighten each bolt to between 35 and 44 lbf in (0.40 and 0.50 mdaN).

(j) With the exception of the special electrical bonding bolt in the right-hand bracket, encapsulate all the floor mounting bolts with sealant PR 1422BT.

(3) Install the toilet tank (Ref.38-31-11, Removal/Installation). Connect the electrical bonding lead to the special outboard bolt on the tank rear mounting bracket, in accordance with 20-27-11. Encapsulate the bolt head with sealant PR 1422 BT.

(4) Install the tank drain control cable and conduit in accordance with 38-31-15, Removal/Installation, with the exception of the paragraph relating to the floor fitting which, in toilet No. 3A, is mounted on a bracket inside the toilet compartment. Seal the control cable conduit to the drip tray (Ref. Fig. 403) as follows:

(a) Fit the grommet seal around the conduit and inside the drip tray flange.

(b) Fit the sleeve seal over the grommet seal and drip tray flange.

(c) Apply a bead of sealant PR 1422 BT to seal the sleeve, grommet seal and conduit.

E. Install Panels and Furnishings (Ref. Fig. 402)

(1) Install the upper sidewall panel:

(a) Remove the screws securing the outboard console to the bulkhead and temporarily remove the console.

(b) Position the sidewall panel and secure it to the angles on the transverse bulkheads by pressing the spire fasteners into their receptacles.

(c) Secure the panel cut-out to the air duct connector with washers and screws.

(d) Secure the bottom edge of the upper sidewall panel to the top edge of the lower sidewall panel with washers and screws.

(e) Secure the top edge of the sidewall panel to the ceiling support structure with washers and bolts.

(f) Re-install the outboard console and secure it to the transverse bulkhead and sanitary napkin dispenser with screws.

(g) Remove the plastic bags from the connectors and install the oxygen mask stowage (Ref. 35-21-15, Removal/Installation).

(2) Install the WC bench unit (Ref.25-41-14, Removal/ Installation).

(3) Install the right-hand backrest panel:

(a) Position the panel and feed the toilet flush control cable through the grommet in the lower sidewall panel. Slide the backrest panel to the right to engage the retaining lip at the panel cut-out. Secure the left and right-hand edges of the panel with washers and screws.

(b) Connect the control cable to the toilet flush air valve (Ref.38-41-15, Removal/Installation).

(4) Install the left-hand backrest panel:

(a) Position the panel by engaging the spigots on its left-hand edge with their receptacles in the transverse bulkhead.

(b) Secure the right-hand edge with screws and washers.

(5) Install the centre backrest panel:

(a) Position the panel in the opened condition and secure the hinges on its bottom edge to the hinge rail with screws.

(b) Fit the used-towel bin in the recess, close the panel and press firmly to engage the spire fasteners in their receptacles.

(6) Position the air extraction grille above the back-rest and press firmly to engage the spire fasteners in their receptacles (Ref. Fig. 401) (Sheet 1 of 2).

(7) Install the toilet mirror (Ref.25-41-12, Removal/ Installation).

(8) Install the toilet door (Ref.52-51-21, Removal/ Installation).

F. Connect Water, and Electrical Services

(1) Install the gallery water pipe extension (Ref. Fig. 404):

(a) Remove No.3 toilet ceiling panel (Ref.25-41-17, Removal/Installation).

(b) Feed the gallery extension pipe over the bulkheads from No.3A toilet. Remove the blank covers and couple the extension pipe to the tee junction in the roof of No.3 toilet (Ref. Detail B). Torque tighten the union nut to between 160 and 180 lbf in (1.81 and 2.03 mdaN).

(c) Couple the other end of the extension pipe to the flexible pipe inside No. 3A toilet inboard console (Ref. Detail C). Torque tighten the union nut to between 160 and 180 lbf in (1.81 and 2.03 mdaN).

(d) Refit the ceiling panel in No.3 toilet (Ref. 25-41-17, Removal/Installation).

(2) Install the ceiling panel in No. 3A toilet (Ref.25-41-17, Removal/Installation).

(3) Connect the toilet electrical services loom to terminal block UM2234 situated at frame 37, in the roof, in accordance with Wiring Diagram Manual 91-17-18.

(4) Position the closure assemblies on the roof support members and secure them with washers and bolts (Ref. Fig. 404).

G. Conclusion

(1) Install the emergency pack and inflation bottle support tray (Ref.25-65-16, Removal/Installation).

(2) Install the intermediate passenger door slide/raft inflation bottle (Ref.25-65-14, Removal/Installation).

(3) Install the emergency pack (Ref.25-62-12, Removal/Installation).

(4) Install the gangway ceiling panel (Ref. 25-21-12, Removal/Installation).

(5) Reset the circuit breakers previously tripped.

(6) Replenish the water system in accordance with 38-11-00, Servicing.

(7) Test the toilet wash system (Ref.38-12-00, Adjustment/Test).

(8) Charge the toilet tank with sanitary fluid (Ref.12-16-38).

(9) Test the toilet tank (Ref.38-31-11, Adjustment/Test).

(10) Test the toilet lighting (Ref.33-22-00, Adjustment/Test).

(11) Test the toilet signs (Ref.33-25-00, Adjustment/Test).

(12) Test the call system (Ref.33-27-00, Adjustment/Test).

(13) Test the oxygen system (Ref.35-21-15, Adjustment/Test).

END OF THIS SECTION

NEXT

LOWER BAGGAGE COMPARTMENT - DESCRIPTION AND OPERATION

1. General (Ref. Fig. 001)

The lower baggage compartment, which has a capacity of 227 cu ft (6.427 cu.m.), is located beneath the passenger compartment floor within the pressurised fuselage in zones 131 and 132. It has a ventral door and is provided with lighting services and a smoke detection device. Lashing rings, net attachment points, cleats, and access panels are located at various points throughout the compartment.

2. Door

The door (Ref. 52-31-21), which is the only means of access to the compartment, unless passenger compartment floor panels and access panels are removed, is situated on the underside of the aircraft fuselage aft of the nose wheel bay. It is counterbalanced with spring attached to hinge arms. A door microswitch which is the primary control of the compartment lights, is set in the side of the door aperture. Another microswitch which is activated by the door latch bolt is connected to the 'doors unlocked' warning panel (Ref. 52-71-00) and the master warning system (Ref. 33-15-00).

3. Lighting

Five filament lamps (Ref. 33-31-00) provide general illumination and a floodlamp illuminates the door area.

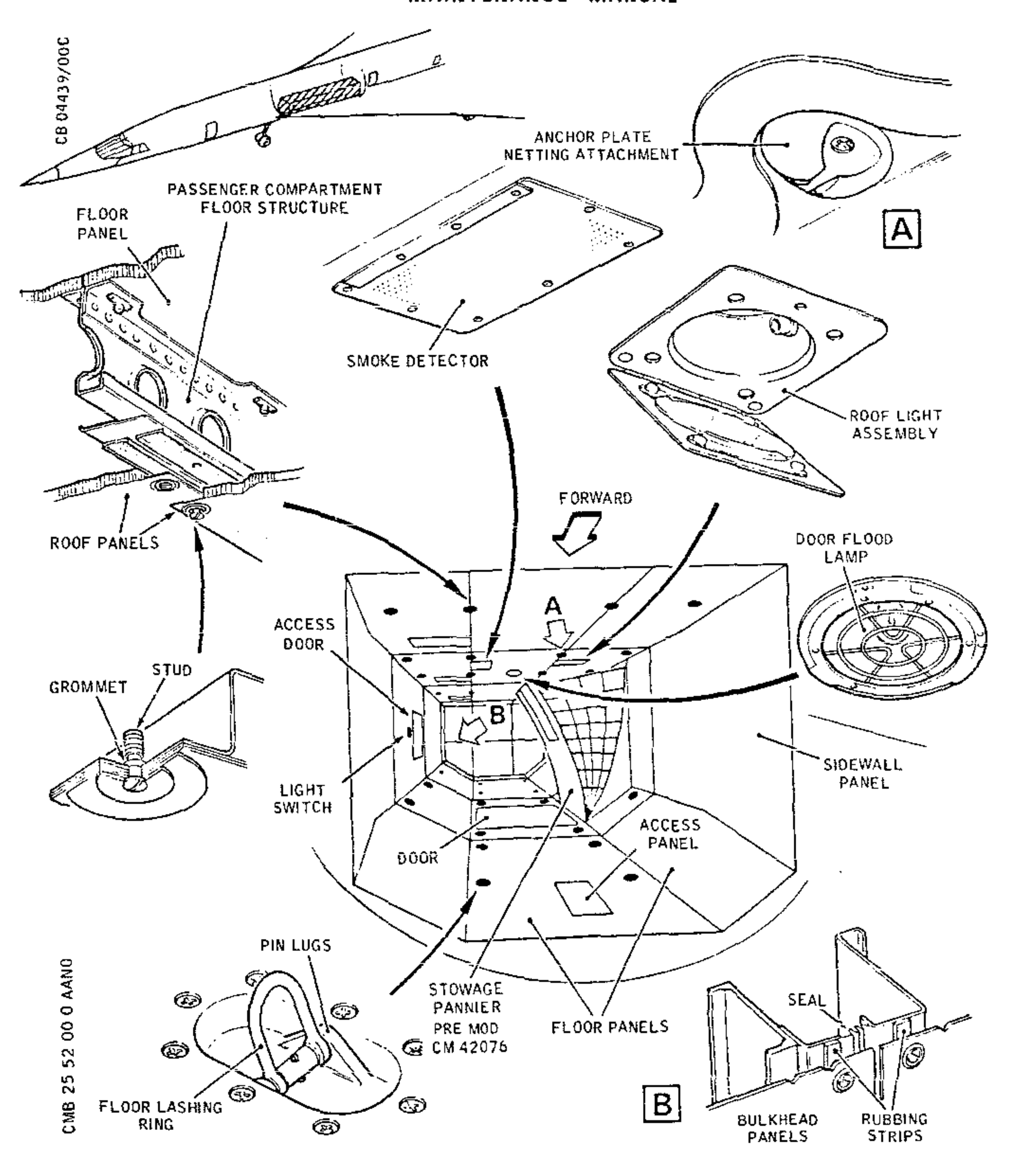
The filament lamps are contained in separate assemblies with flush fitting protective translucent covers, and are spaced along the left hand and right hand sides of the compartment ceiling.

The floodlamp, which is flush fitted in the compartment roof above the baggage door, comprises a single-contact bayonet lamp in an elliptical reflector housing containing a diffused glass lens behind a protective metal grille.

An ON-OFF switch on the left-hand sidewall near the door controls all the lights in the compartment.

4. Smoke Detector

A space type smoke detector unit (Ref. 26-13-00) is flush fitted in the roof of the compartment aft of the door flood lamp, and is connected to a SMOKE DETECT caption light at the 3CM station in the flight compartment.



Lower Baggage Compartment
Figure 001

B

5. Floor Panels

The floor panels are similar in construction to the passenger compartment floor panels (Ref. 53-21-00) and are fitted with lashing rings set in recesses in the panels. Net attachment points are recessed into the inclined outer panels of the floor.

6. Sidewall Panels

These panels comprise an envelope of fibreglass skins filled with thermal insulating material. They are attached to sealing strips, support members, blocks and brackets on the fuselage frames with studs and grommets for quick release.

Doors, for gaining access to the cabin window desiccator units (Ref. 56-22-00), are set in the sidewall panels, one on the left-hand side and one on the right-hand side of the compartment.

7. Bulkhead Panels

The bulkhead panels, which are fibre glass skinned nomex core honeycombe, are fitted to the baggage compartment bulkhead structures. Removal of the front bulkhead upper panels gives access to the water system tanks, air filters, discharge valves and vacuum pumps. Removal of the rear bulkhead panels gives access to the insulation and vapour seal membrane of the forward bulkhead of number 9 fuel tank and to radio altimeter units.

8. Roof Panels

The roof panels, are fabricated from resin impregnated fibreglass. They have apertures for the lighting, lashing and net cleats, smoke detector and access panels, and are secured to the passenger compartment floor structure with the studs held captive in the panels with grommets. Joints between the panels are covered with joint strips, and the joint between the roof panels and sidewall panels is covered with angle strips.

Baggage - Retaining Nets (Ref. Fig.002 and 003)

Two nets, each comprising a vinyl covered web of vertical and horizontal straps, are provided to retain the stowed freight and keep it clear of the compartment door. Each net is fitted transversely in two halves to floor and roof attachment points and with the tensioning buckles on the side nearest the door. When fitted, the net is tensioned by first tightening the inboard vertical straps. The outboard vertical straps are

then made taut by tightening the buckle on the lower horizontal strap and, finally, the remaining horizontal straps are tightened to strain against the vertical straps.

Another similar net is fitted, forward of the compartment door at frame 29B, with the tensioning buckles on the side nearest the door.

B B B B B B NOTE: These nets are superseded by one piece nets of open mesh construction. The nets are tightened by first tightening the four vertical straps and finally tightening the bottom horizontal strap. When not in use the nets are stowed on one side of the hold by clipping the hook onto the 'D' ring.

10. Pannier

A stowage pannier is installed on the RH side of the hold entrance door.

It comprises a curved panel of honeycomb core sandwiched between fibreglass skins which is hinged to the floor, and netting that forms the sides between the panel and the compartment sidewall.

The panel can be secured in any one of three positions: fully extended, half extended or stowed against the sidewall. A hinged hatch in the panel facilitates loading and, when open, can be restrained by a bungee at the front of the panel.

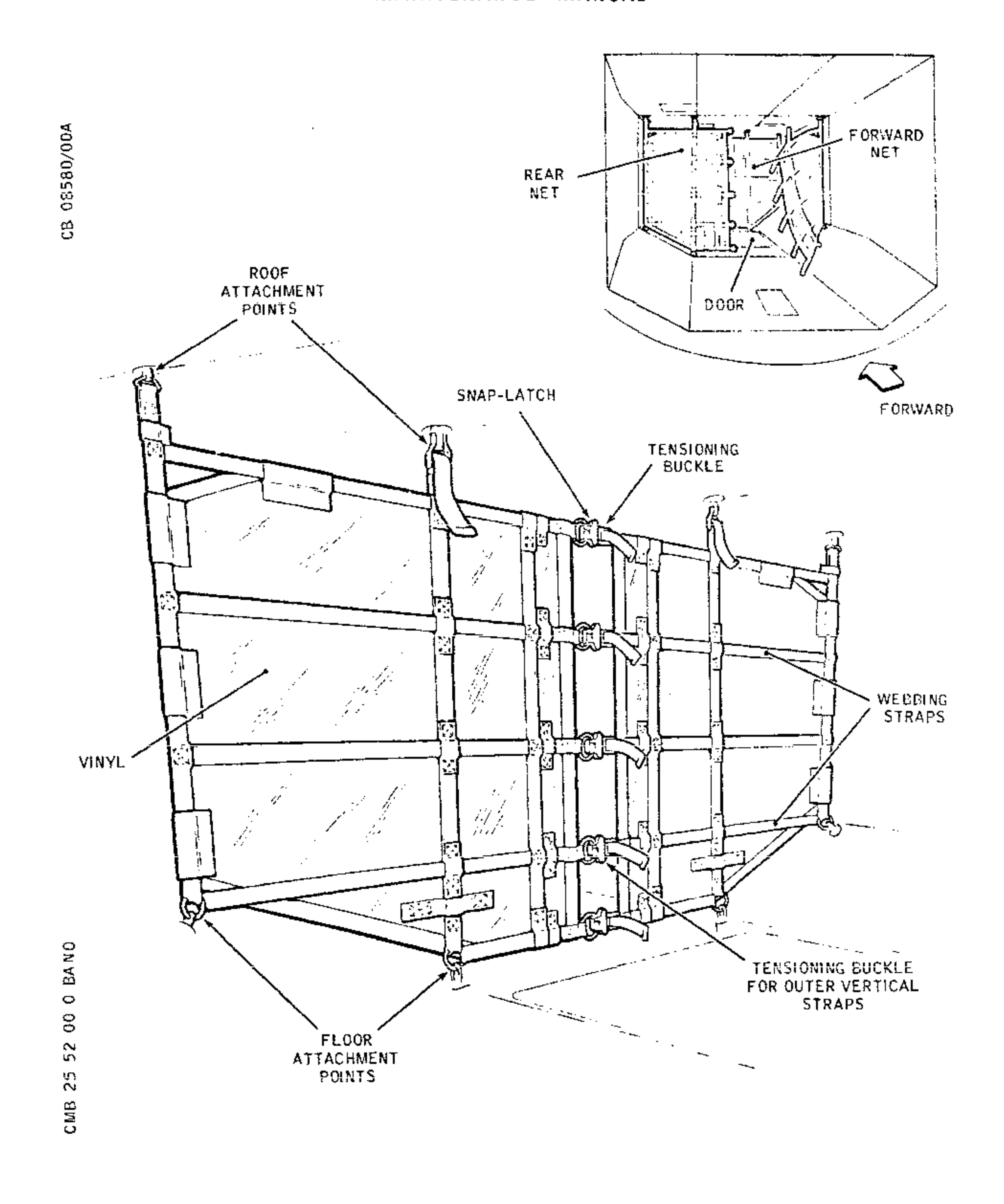
B NOTE: The pannier has been removed from A/C (Mod. CM.42076).

11. Operation

The baggage compartment door can only be opened from outside the aircraft. To open the door the circular end of the door handle must be pressed to spring it out of its recess; the handle is then turned clockwise and the door pushed upward and to the left-hand side of the aircraft. To shut the door it must be pulled down into its aperture and the door handle turned counter-clockwise and returned to its recess.

If the door is not properly secured a warning caption at the third crew members station is illuminated (Ref. 52-71-00). Additionally, a master warning RED caption light illuminates in the roof panel of the flight compartment.

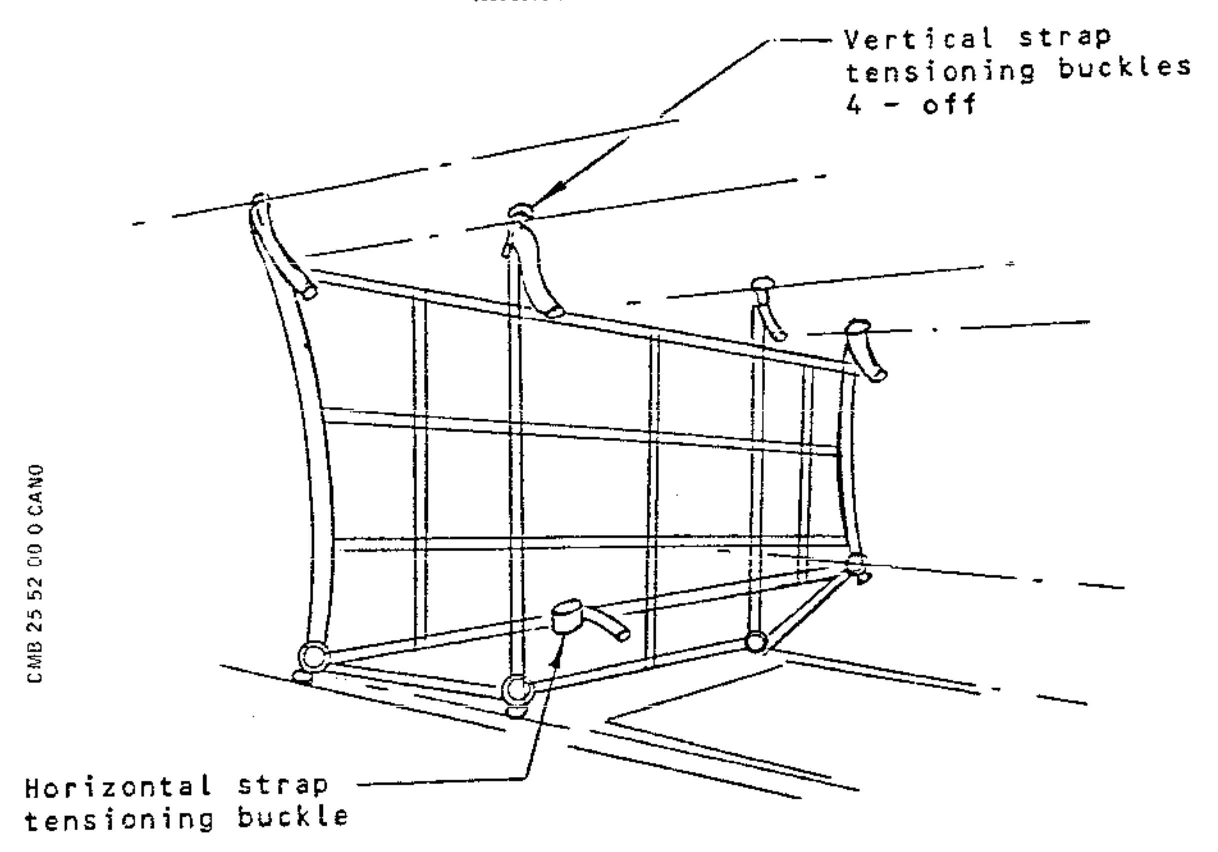
The compartment lights which are supplied from ground



Baggage Retaining Nets
(Superseded by net shown in Fig. 003)
Figure 002

B

R



Baggage Retaining Nets
(Supersedes net shown in Fig. 002) B
Figure 003

electrical power only, are switched on when the door is opened by the door microswitch which has the primary control over the lights. Secondary control is via the ON-OFF lights control switch.

The smoke detector, which is sensitive to the presence of smoke and hydraulic fluid mist, permits air from the baggage compartment to flow through its perforated metal cover. Should smoke or hydraulic fluid mist be present in the compartment an amber SMOKE DETECT caption light at the 3CM station will illuminate.

The lower baggage compartment has no direct connection to the air distribution system, but is cooled or heated by air ducted from the flight compartment air supply (Ref. 21-24-00). The air which is supplied by flexible ducts at every frame bay along the length of the compartment, circulates around the outside of the compartment. Pressure equalization between the baggage compartment and the surrounding pressurized area and the passenger compartment is effected by leakage through the panel joints.

LOWER BAGGAGE COMPARTMENT -
INSPECTION/CHECK

WARNING: THE COMPARTMENT DOOR CANNOT BE OPENED FROM INSIDE THE AIRCRAFT.

R **ON A/C 006-007,

1. General

The compartment is situated in the underfloor section of the aircraft, aft of the landing gear nose wheel bay. Apertures are provided in the floor panels for lashing rings and netting attachments and in the roof panels for netting attachments, roof lights, smoke detector and the doorway floodlight. Nets are provided to divide the compartment when in use.

**ON A/C 001-005,

1. General

The compartment is situated in the underfloor section of the aircraft, aft of the landing gear nosewheel bay. Apertures are provided in the floor panels for lashing rings and netting attachments and in the roof panels for netting attachments, roof lights, smoke detector and the doorway floodlight, nets are provided to divide the compartment when in use, and a stowage pannier is fitted on the RH side of the compartment in line with the door.

2. Inspection/Check

A. Preparation

(1) Make available electrical ground power to the ground bus bars (Ref. 24-41-00).

(2) Open door 811 and place the compartment lights control switch to "ON".

B. Inspection

(1) Ensure that the compartment is clean.

(2) Inspect all furnishing and floor panels for damage.

(3) Visually inspect all netting attachments and lashing ring assemblies for damage, corrosion and cracks.

(4) Inspect roof lights, smoke detector and doorway flood-light for corrosion and damage.

(5) Inspect all divider nets for damage.

**ON A/C 001-005,

(6) Inspect the stowage pannier for damage.

(7) Ensure that the loading labels on the compartment roof and on the pannier are legible.

R **ON A/C 006-007,

(6) Ensure that the loading label on the roof of the compartment is legible.

C. Check

(1) Check furnishing and floor panels for security.

(2) Check all netting attachments and lashing ring assemblies for security and that the split pin fitted through the collar and pin is not broken.

(3) Check the roof lights, smoke detector and doorway floodlight for security and ensure that the smoke detector perforations are clear.

(4) Check the divider nets for operation.

**ON A/C 001-005,

(5) Check the stowage pannier for security and operation.

D. Conclusion

(1) Place the compartment light control to "OFF".

(2) Vacate the compartment and close the door.

(3) Switch off electrical ground power (Ref. 24-41-00).

LOWER BAGGAGE COMPARTMENT - INSULATION APPROVED REPAIRS

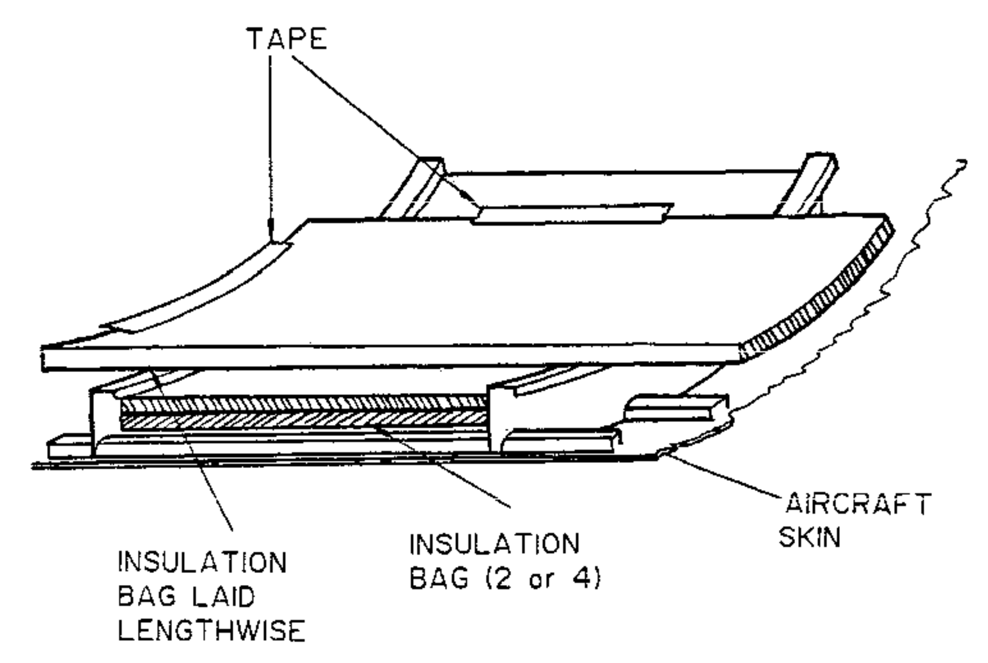
1. General

This procedure applies only to the Underfloor Insulation in the Lower Baggage Compartment.

RB NOTE: Sandwich Structural Panels which are beyond repair, are
RB to be remanufactured in accordance with RS 25 60687.

2. Replacement of Insulation (Ref. Fig. 801)

A. Remove old insulation.



Lower Baggage Compartment - Insulation Repairs
Figure 801

B. Lay 2 bags of standard insulation, part number 4-46174-2 (1 inch thick) or 4 bags part number 4-46174-1 (1/2 inch thick) above stringers between frames.

C. Tape to frames, to seal off, with OT6 tape (ORCON).

D. Place 1 bag 4-46174-2 or 2 bags 4-46174-1 lengthwise over top of frames.

E. Tape to adjacent bags, to seal off, with OT6 tape.

F. Make cut-outs for skin fittings and seal with OT6 Tape. Pipes and cables should lie above insulation where possible. Leave air gap between top bag and the compartment floor.

LOWER BAGGAGE COMPARTMENT FURNISHING PANELS REMOVAL/INSTALLATION

WARNING: THE COMPARTMENT DOOR CANNOT BE OPENED FROM THE INSIDE OF THE AIRCRAFT.

1. General (Ref. Fig. 401)

R **ON A/C 006-007,

The furnishing panels are installed on the sidewalls, roof and bulkheads to prevent damage to the services installed behind the panels and to prevent the transfer of heat from the surrounding areas into the compartment. Sealing strips are installed between structure members. The roof centre panels are reinforced to prevent damage to tbe cable runs above them. This topic also includes the removal/installation procedure for the desiccator or filter access doors.

**ON A/C 001-005,

The furnishing panels are installed on the sidewalls, roof and bulkheads of the compartment to prevent damage to the services installed behind the panels and to prevent heat transfer from the surrounding areas. Sealing strips are fitted between structure members. The roof centre panels are reinforced to prevent damage to the cable runs above them. A stowage pannier is fitted on the RH side of the compartment. This topic also contains the removal/installation procedure for the desiccator or filter access doors.

2. Desiccator or Filter Access Doors

A. Prepare

(1) Make available electrical ground power to the ground busbars (Ref. 24-41-00).

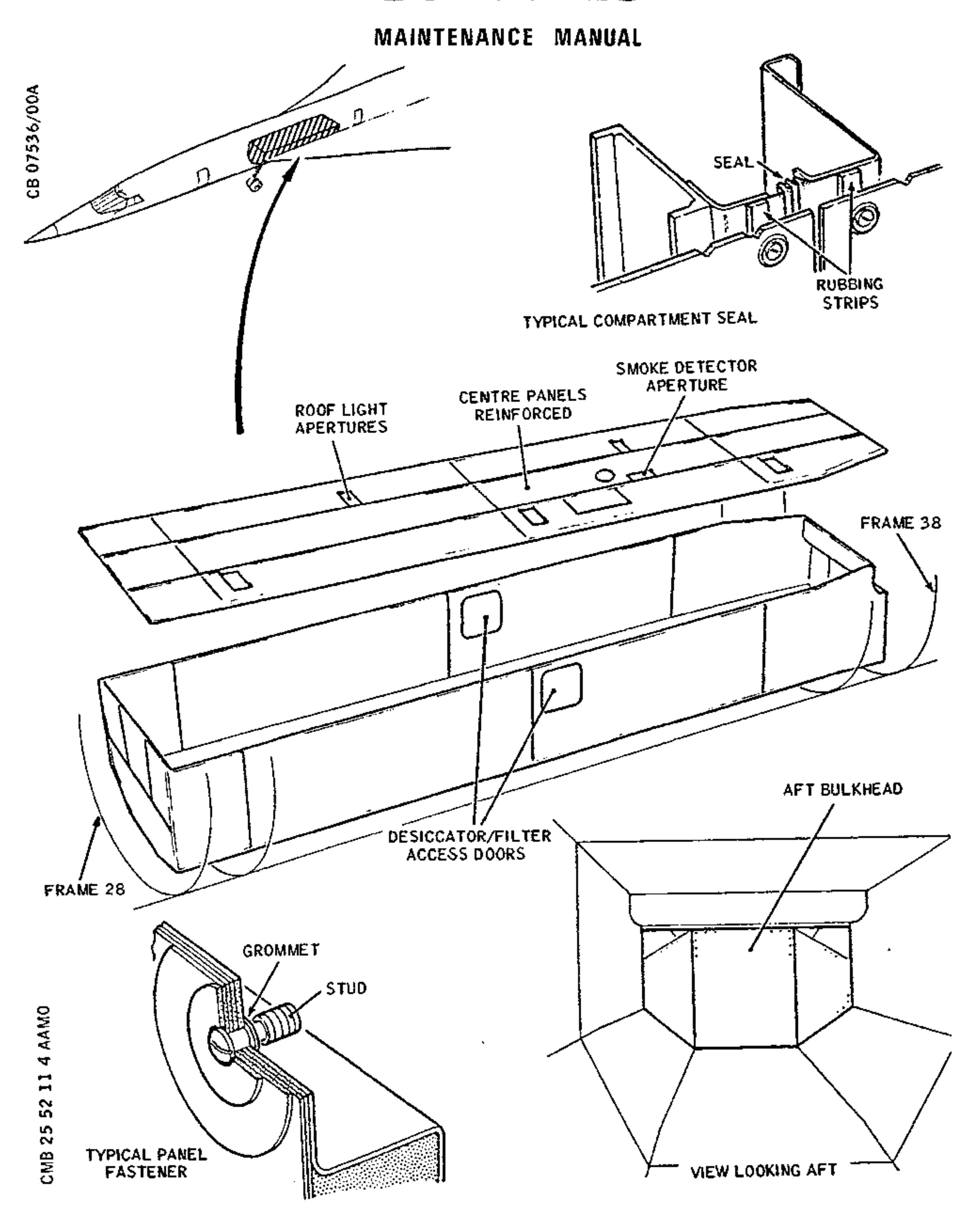
(2) Open door 811 and place the compartment light control switch to 'ON'.

B. Remove Desiccator or Filter Access Doors

(1) Unscrew the studs. Do not attempt to remove the studs from the door.

(2) Remove the door.

C. Install Desiccator or Filter Access Door



Furnishing Panels
Figure 401

(1) Ensure that all attachments are secure and all captive nuts are serviceable.

(2) Ensure that the door and seals are undamaged.

(3) Position the door and retain it with the studs, hand tighten the studs.

R **ON A/C 006-007,

3. Sidewall Panels

A. Prepare

(1) Open door.

B. Remove

(1) Support the panel and unscrew the studs. Do not attempt to remove the studs from the panel.

(2) Remove the panel and place it on a suitable stand.

C. Install

(1) Ensure that all attachments are secure and all captive nuts are serviceable.

(2) Ensure that the panel, seals and rubbing strips are undamaged.

(3) Position the panel and retain it with the studs, hand tighten the studs.

**ON A/C 001-005,

4. Sidewall Panels

A. Prepare

(1) Open door.

B. Remove

(1) Remove the stowage pannier if necessary (Ref. 25-52-13, Removal/Installation).

(2) Support the panel and unscrew the studs. Do not attempt to remove the studs from the panel.

(3) Remove the panel and place it on a suitable stand.

C. Install

(1) Ensure that all attachments are secure and all captive nuts are serviceable.

(2) Ensure that the panel and seals and rubbing strips are undamaged.

(3) Position the panel and secure it with the studs; hand tighten the studs.

(4) Install the stowage pannier if necessary (Ref. 25-53-13, Removal/Installation).

5. Roof Panels

A. Prepare

(1) Open door.

B. Remove

(1) Support the panel and unscrew the studs. Do not attempt to remove the studs from the panel.

(2) Remove the panel.

C. Install

(1) Ensure that all attachments are secure and all captive nuts are serviceable.

(2) Ensure that the panel, seals and rubbing strips are undamaged.

(3) Position the panel and retain with the studs, hand tighten the studs.

6. Bulkhead Panels

A. Prepare

(1) Open door.

B. Remove

(1) Remove the countersunk head bolts and dimpled washers.

(2) Remove the panels as required.

C. Install

(1) Ensure that all attachments are secure and all anchor nuts are serviceable.

(2) Ensure that the panel and seals are undamaged.

(3) Position the panel and retain it with countersunk head bolts and dimpled washers, progressively hand tighten the bolts.

(4) Turn the compartment light switch to 'OFF' and close the door 811.

(5) Remove electrical ground power (Ref. 24-41-00).

LOWER BAGGAGE COMPARTMENT SIDEWALL PANELS - APPROVED REPAIR

WARNING: A SIDE WALL PANEL WITH BOTH SKINS DAMAGED MUST BE REPAIRED BEFORE THE NEXT FLIGHT OF THE AIRCRAFT TO PRESERVE THE FIRE RESTRAINT PROPERTIES OF THE PANEL.

1. General

Each lower baggage compartment sidewall panel consists of insulation material in a Nomex paper cover, sandwiched between two glasscloth skins. The panels, which can be subjected to impact damage during service, may be repaired provided the sustained damage is within the specified limitations.

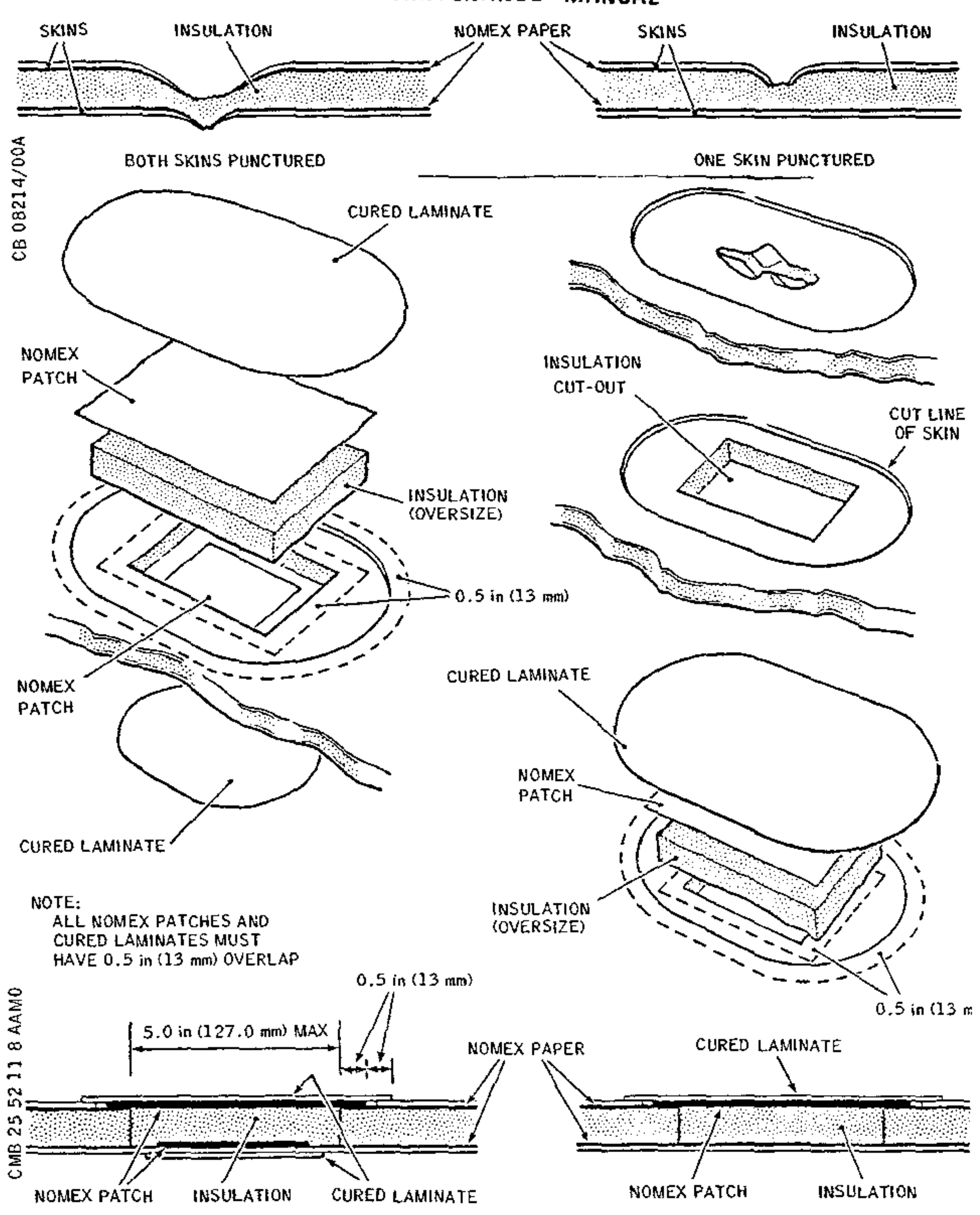
2. Panel Repair - Both Skins Punctured (Ref. Fig. 801)

A. Equipment and Materials

DESCRIPTION	PART NO.
Insulation material, CM 311 1.0 in (25.4 mm) thick (Ref. 20-30-00, No.135)	-
Nomex paper covering CM 349 (blue/grey)(Ref.20-30-00, No.125)	-
R Boscoprene 2402, 2 part adhesive (Ref. 20-30-00, No.328)	-
Cured laminate 0.030in (0.80 mm) thick (Ref. 20-30-00, No.151)	-
Garnet paper 150/180 grade	-
Solvent BAC M302 (Ref. 20-30-00, No.473)	-
Kimwipe tissues	-

B. Limitations.

(1) On panels which have both skins and the core insulation damaged, the damage must be contained within a 5.0 in (127.0 mm) dia circle and must not be



Sidewall Panels - Approved Repairs
Figure 801

less than 4.0 in (101.6 mm) from the edge of the panel.

(2) Repairs must be at least four times the repair maximum dimension apart, measured from edge to edge of the repair.

NOTE: There is no limit to the number of repairs on a single panel provided the limitations are observed.

C. Prepare

(1) Remove the damaged panel (Ref. 25-52-11, Removal/ Installation).

D. Preparation of Damaged Area.

(1) Cut the damaged skins, on both sides of the panel to a uniform shape and expose the damaged Nomex paper envelope and insulation. Remove all dust and debris

NOTE: Do not cut the Nomex paper. Remove only the minimum of material to effect the repair.

(2) Mark out the full extent of the damaged insulation on the larger face of the exposed Nomex paper.

NOTE: The insulation cut-out must be in square or rectangular form and must cover the full extent of the damage.

(3) Cut the marked area of the Nomex paper and insulation Do not damage the Nomex paper on the opposite side of the panel during this operation.

(4) Remove the Nomex paper, insulation and dust from the area.

E. Application of Nomex Patch (Inside)

CAUTION: AVOID ADHESIVE COMING INTO CONTACT WITH THE INSULATION.

THE ADHESIVE WILL NOT PERMIT REPOSITIONING THE PATCH.

NOTE: The exposed damaged Nomex paper can be repaired on the inside.

(1) Mark-out the damaged Nomex paper 0.5 in (13 mm)

larger than the damage.

(2) Cut a Nomex paper patch to cover the whole marked area.

(3) Apply the adhesive to the marked area and to one side of the Nomex paper patch (Ref. 20-25-15).

(4) Position the Nomex paper patch. Support the Nomex paper through the skin cut-out during the expulsion of air pockets.

F. Application of Insulation Insert.

(1) Measure the extent of the insulation cut-outs and cut from the CM 311 insulation material an insert 0.5 in (13 mm) oversize.

(2) Carefully pack the insulation insert into the cut-out until the insert does not protrude above the level of the existing insulation.

G. Application of Nomex Patch (Outside)

CAUTION: AVOID ADHESIVE COMING INTO CONTACT WITH THE INSULATION MATERIAL.

THE ADHESIVE WILL NOT PERMIT REPOSITIONING THE PATCH.

(1) Mark out an area 0.5 in (13 mm) larger than the perimeter of the existing Nomex paper cut-out.

(2) Cut a Nomex paper patch to cover the marked area.

(3) Apply adhesive to the 0.5 in (13 mm) cut-out surround and to 0.5 in (13 mm) round the edge of the patch; position the Nomex paper patch (Ref. 20-25-15). Do not crush the insulation during the operation.

H. Complete Repair.

CAUTION: AVOID ADHESIVE COMING INTO CONTACT WITH THE NOMEX PAPER ENVELOPE.

THE ADHESIVE WILL NOT PERMIT REPOSITIONING THE CURED LAMINATE.

(1) Clean the area round the skin cut-out, using a clean, dry tissue moistened with solvent, then wipe dry with a clean, dry tissue.

(2) Dry abrade an area 0.5 in (13 mm) larger than the skin cut-out, to a fine matt finish.

(3) Remove all dust from the area.

(4) Clean the abraded area using a clean, dry tissue moistened with solvent, then wipe dry with a clean dry tissue.

(5) Cut to shape one lamination of the cured laminate for each skin cut-out to give an overlap of 0.5 in (13 mm) beyond the cut-out.

(6) Clean one face of the cured laminate, using a clean, dry tissue material with solvent, then wipe dry with a clean dry tissue.

(7) Dry abrade a 0.5 in (13 mm) area round the edge of the cleaned face of the cured laminate to a fine matt finish.

(8) Clean the abraded area with a clean dry tissue moistened in solvent, then wipe dry with a clean dry tissue.

(9) Apply adhesive to the abraded areas and position the laminate (Ref. 20-25-15).

(10) Install the repaired panel (Ref. 25-52-11, Removal/ Installation).

3. Panel Repair - One Skin Punctured (Ref. Fig. 801)

WARNING: A PANEL WITH ONE SKIN PUNCTURED MUST BE REPAIRED AS SOON AS POSSIBLE TO PRESERVE THE FIRE RESTRAINT PROPERTIES OF THE PANEL.

A. Equipment and Materials

DESCRIPTION	PART NO.
Insulation material CM 311 1.0 in (25.4 mm) thick (Ref. 20-30-00, No. 135)	-
Nomex paper covering CM 349 (blue/grey)(Ref. 20-30-00, No.125)	-
Boscoprene 2402, 2 part adhesive	

DESCRIPTION	PART NO.
(Ref. 20-30-00, No. 328)	-
R Cured laminate 0.030 in (0.80 mm) R thick. (Ref. 20-30-00,No.151	-
Garnet paper 150/180 grade	-
Solvent BAC M 302 (Ref. 20-30-00,No. 473)	-
Kimwipe tissues	-

B. Limitations

(1) On panels which have one skin and the core insulation damaged, the damage must be contained within a 5.0 in (127.0 mm) dia circle and must not be less than 4.0 in (101.6 mm) from the edge of the panel.

(2) Repairs must be at least four times the repair maximum dimension apart, measured from edge to edge of the repair.

NOTE: There is no limitation to the number of repairs an a single panel provided the limitations are observed.

C. Preparation of Damaged Area.

(1) Cut the damaged skin to a uniform shape and expose the damaged Nomex paper envelope and insulation. Remove all dust and debris.

NOTE: Do not cut the Nomex paper.

Remove only a minimum of material to effect the repair.

(2) Mark out the full extent of the insulation damage on the exposed face of the Nomex paper.

NOTE: The insulation cut-out must be in square or rectangular form and must cover the full extent of the damage.

(3) Cut the marked area of the Nomex paper and insulation. Do not damage the Nomex paper on the opposite side of the panel during this operation.

(4) Remove the Nomex paper, insulation and dust from the area.

D. Application of Insulation Insert

(1) Measure the extent of the insulation cut-out and cut from the CM 311 insulation material an insert 0.5 in (13 mm) oversize.

(2) Carefully pack the insulation insert into the cut-out until the insert does not protrude above the existing insulation.

G. Application of Nomex Patch

CAUTION: AVOID ADHESIVE COMING INTO CONTACT WITH THE INSULATION MATERIAL.

THE ADHESIVE WILL NOT PERMIT REPOSITIONING THE PATCH.

(1) Mark out an area 0.5 in (13 mm) larger than the perimeter of the existing Nomex paper cut-out.

(2) Cut a Nomex paper patch to cover the marked area.

(3) Apply adhesive to the 0.5 in (13 mm) cut out surround and to 0.5 in (13 mm) round the edge of the patch; position the Nomex paper patch (Ref. 20-25-15). Do not crush the insulation during this operation.

H. Complete REpair

CAUTION: AVOID ADHESIVE COMING INTO CONTACT WITH THE NOMEX PAPER ENVELOPE.

THE ADHESIVE WILL NOT PERMIT REPOSITIONING THE PATCH.

(1) Clean the area round the skin cut-out, using a clean, dry tissue moistened with solvent, then wipe dry with a clean, dry tissue.

(2) Dry abrade the 0.5 in (13 mm) round the skin cut-out, to a fine matt finish.

(3) Remove all dust from the area.

(4) Clean the abraded area, using a clean, dry tissue moistened with solvent, then wipe dry with a clean, dry tissue.

(5) Cut to shape one lamination of the cured laminate to give an overlap of 0.5 in (13 mm) beyond the skin cut-out.

(6) Clean one face of the cured laminate, using a clean dry tissue moistened with solvent, then wipe dry with a clean dry tissue.

(7) Dry abrade a 0.5 in (13 mm) area round the edge of the cleaned face of the cured laminate to a fine matt finish.

(8) Clean the abraded area with a clean, dry tissue moistened with solvent, then wipe dry with a clean, dry tissue.

(9) Apply adhesive to the abraded areas and position the laminate (Ref. 20-25-15).

R

STOWAGE PANNIER - REMOVAL/INSTALLATION

WARNING: THE COMPARTMENT DOOR CAN NOT BE OPENED FROM THE INSIDE OF THE AIRCRAFT.

1. General (Ref. Fig. 401)

The pannier is fitted on the RH side of the compartment in line with the door and comprises a pannier panel with a loading door, restraint cables, end panels and end nets. The pannier panel is hinged at the floor line and has three positions: fully extended, mid-extension and stowed.

2. Stowage Pannier (Ref. Fig. 401)

A. Prepare

(1) Gain access to the compartment through door 811.

(2) Make available electrical ground power to the ground busbar (Ref. 24-41-00) and turn the compartment light switch to 'ON'.

B. Remove

(1) Ensure that the loading door is locked by its pip-pins in the closed position.

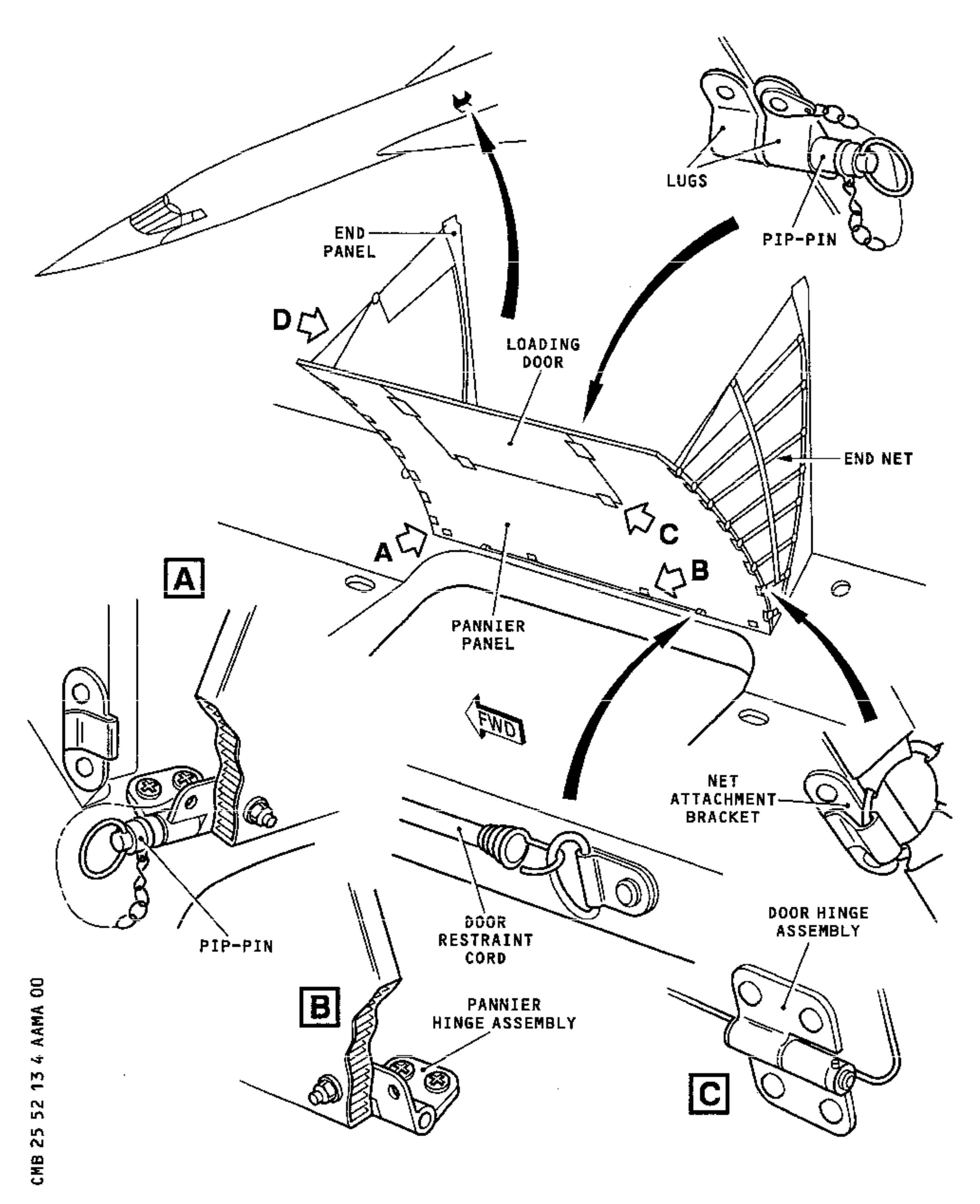
(2) Remove the end net rings from the net attachment on the end panels and from each edge of the pannier panel. Do not attempt to remove the end nets.

(3) Support the pannier panel and remove the nut, bolt and washer securing each restraint cable to the tie brackets.

(4) Remove the pip-pin from the pannier panel hinge assembly, then slide the panel from the hinges (Detail A) and place it on a suitable stand.

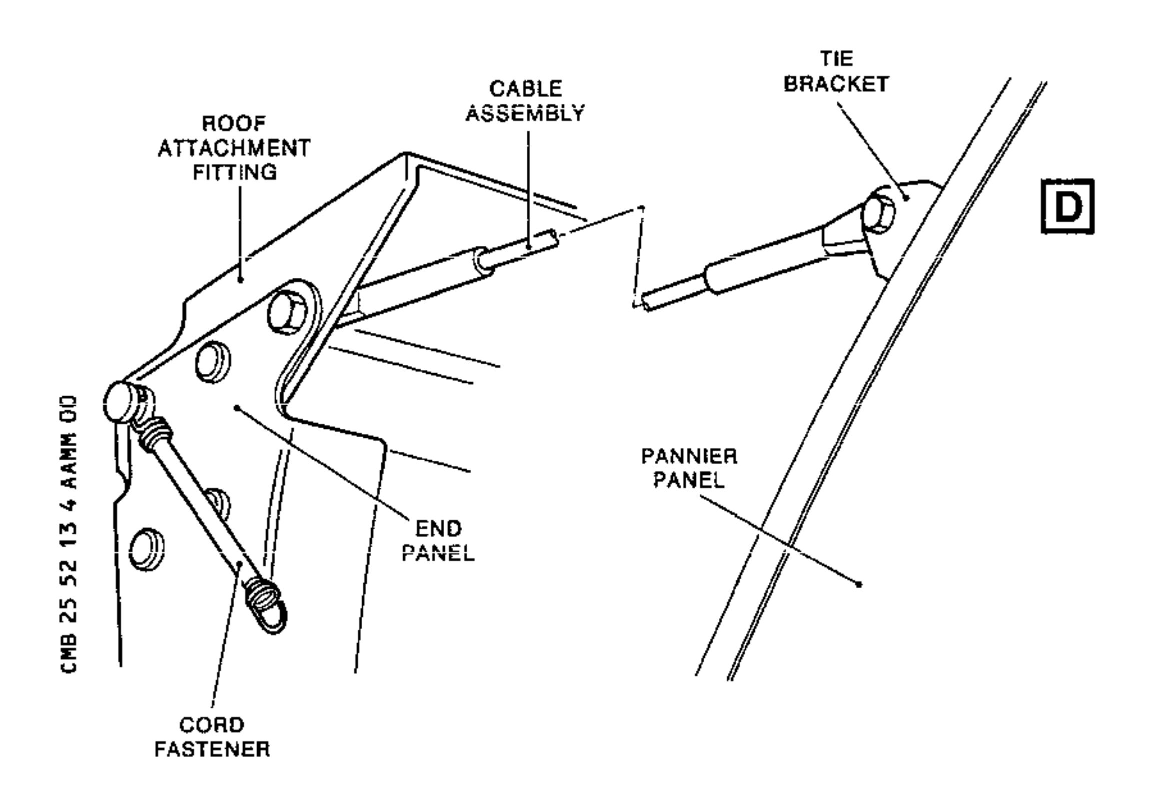
(5) Remove the end nets from the restraint cables.

(6) Remove the pan-headed bolts from the front and rear end panel roof attachment fittings and at the floor attachments positions. Remove the panels complete with roof attachments fittings, restraint cables and cord fasteners.



PRINTED IN ENGLAND

Stowage Pannier (Sheet 1 of 2)
Figure 401



Stowage Pannier (Sheet 2 of 2)
Figure 401

C. Install

(1) Ensure that the end panels, roof attachment fittings, restraint cables and the cord fasteners are undamaged and the associated anchor nuts are serviceable.

(2) Position the front and rear end panels and secure them with the pan-headed bolts. Hand tighten the bolts.

(3) Ensure that the pannier panel and the hinge assemblies are undamaged and the pip-pin is serviceable.

(4) Position the pannier panel and slide the hinge spigots into the floor hinges, insert the pip-pin into its location (Detail A) and ensure it is locked.

(5) Ensure that the end nets are undamaged.

(6) Feed the restraint cables through the appropriate net upper rings and secure them to their tie bracket with the bolt, washer and nut. Hand tighten the nut.

(7) Hook the rings of the end nets to the net attachment brackets on the end panels and the pannier panel edges.

(8) Move the compartment light switch to "OFF" and remove ground electrical power (Ref. 24-41-00).

(9) Vacate the compartment and close the door 811.

UPPER BAGGAGE COMPARTMENT - DESCRIPTION AND OPERATION

1. General (Ref. Fig.001 and 002)

An upper baggage compartment is located at the rear of the passenger compartment, within the pressurized area, in zone 243. The compartment has a capacity of 476 cu ft (13.48 cu m) and is accessible through a doorway on the right-hand side of the rear fuselage.

The compartment is lined throughout with wall and ceiling panels of rigid foam material coated with resin impregnated glass fibre, and floor panels of a balsa core, sandwiched by upper and lower aluminium alloy skins. The compartment is provided with lighting facilities (Ref. 33-31-00), and lashing and net attachment points in the walls and floor and a diplomatic locker.

2. Doors

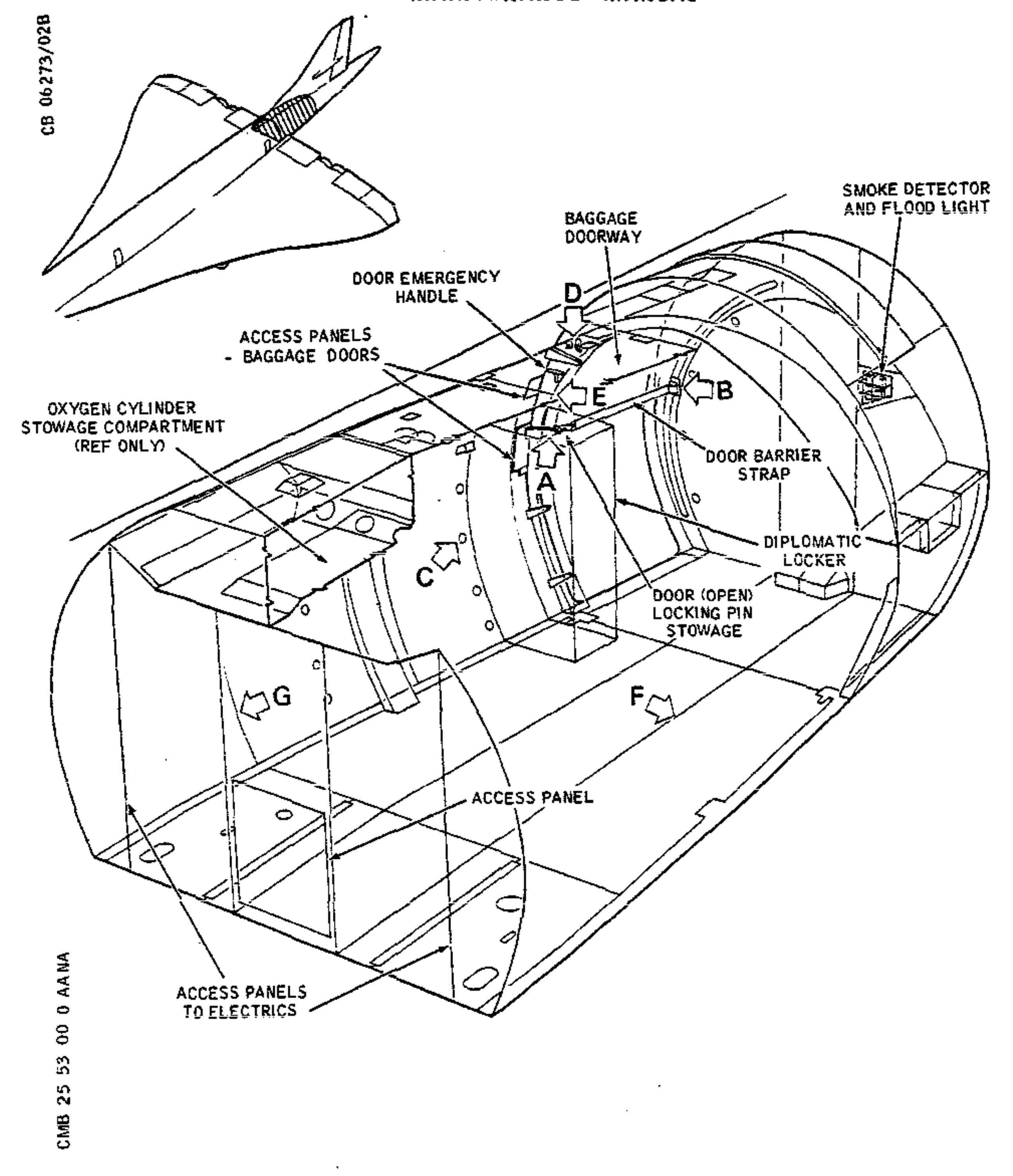
The upper baggage compartment loading door (Ref. 52-31-11), is the rear door on the right-hand side of the fuselage. It is opened from outside the aircraft by depressing the flap over the door handle, pulling the handle out and turning it clockwise. The door is then pushed inward and raised to the roof stowage position aided by a counter balance, spring and cables. A carriage running on a centre track guides the top of the door.

The stowage net that protects the door is then unlatched from the forward edge of the door, rolled back to the bulkhead and clipped clear of the doorway aperture. A safety pin is provided for locking the door carriage or retaining the door in the open position during servicing. It is stowed on a net attachment strut on the forward side of the door surround and is retained by a lanyard.

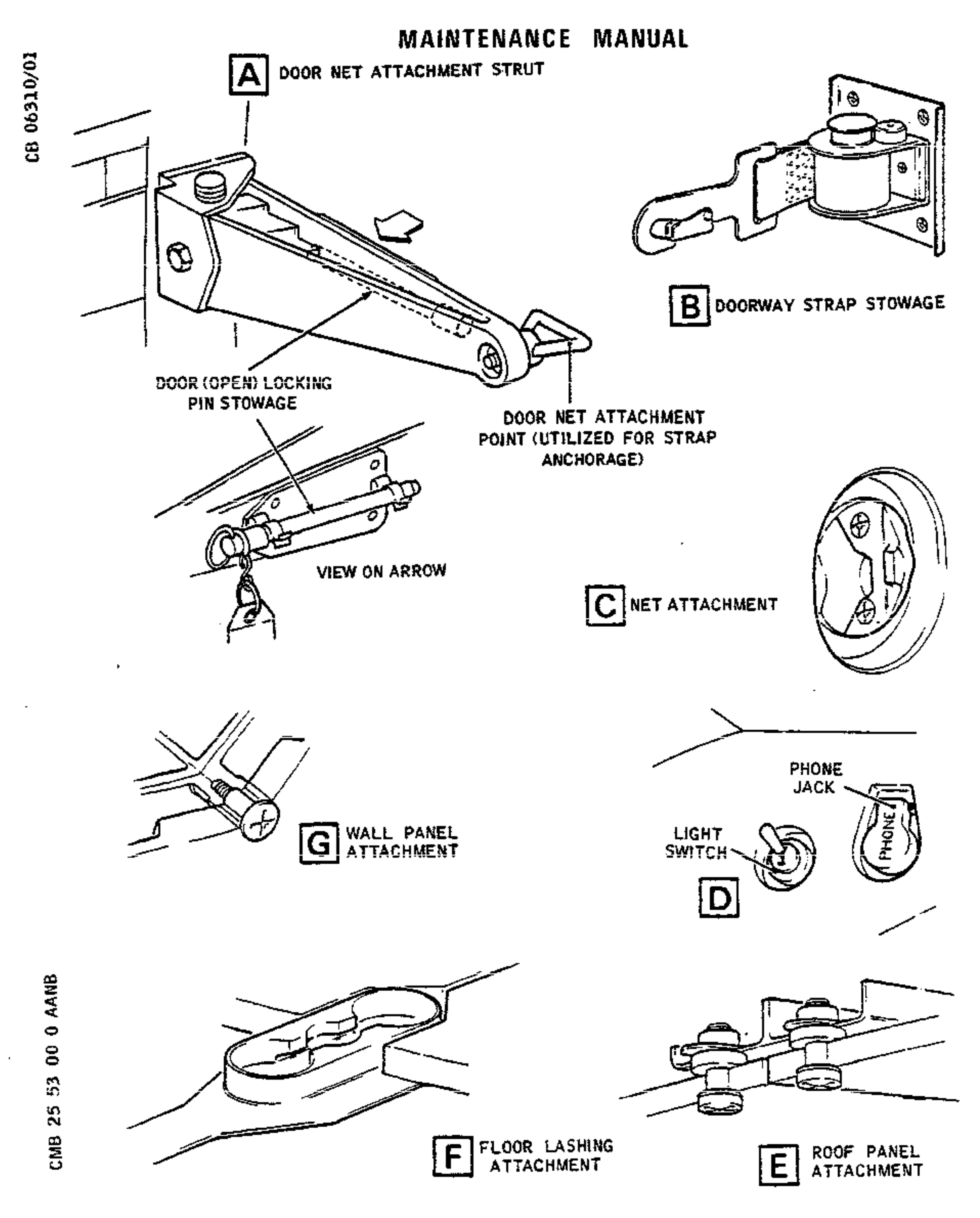
To open the door from the inside in an emergency a handle is inserted in the centre shaft and turned counter-clockwise. When not in use the handle is clipped to the door surround structure.

When a door is closed from the outside, the doorway net is unclipped from the bulkhead, spread across the door aperture and latched to the forward edge of the doorway surround. The door is then pulled out of its stowage by the strap on the bottom edge of the door and when pulled right down is pulled outward and latched by returning the door handle to the horizontal and stowed position.

A removable access door is fitted to the forward bulkhead to permit access from the rear passenger cabin. The door consists of a framework with an aluminium skin on the

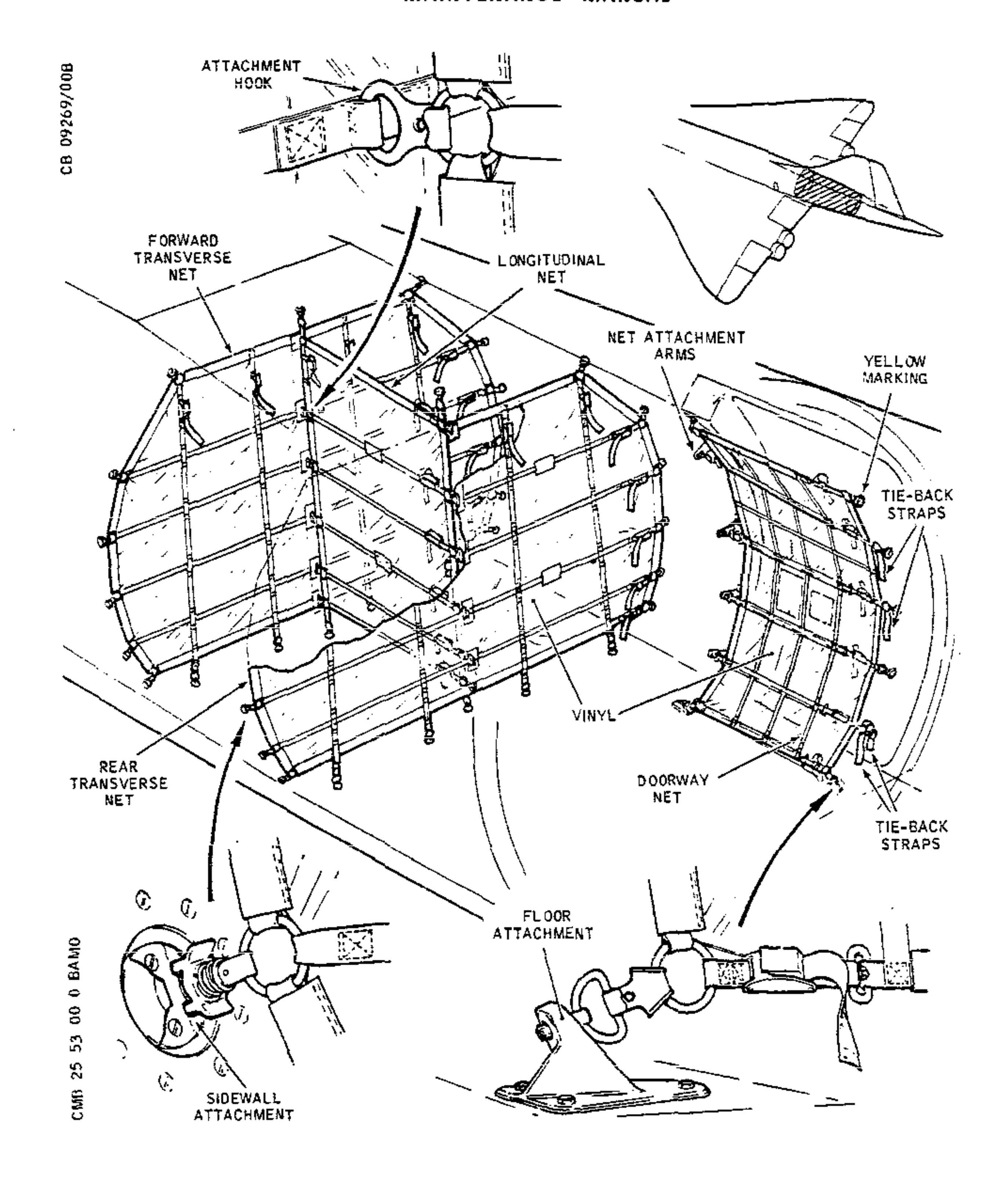


Upper Baggage Compartment (Sheet 1 of 2)
R Figure 001



Upper Baggage Compartment (Sheet 2 of 2)
Figure 001

R



Baggage Retaining Nets
Figure 002

R

R forward face and honeycomb cored panels bolted to its rear
R face and is secured to the bulkhead with four catches.

3. Lighting

The compartment lighting is provided by six filament lamps installed in the compartment roof, and a floodlamp to illuminate the door area, mounted on the rear bulkhead (Ref. 33-31-00).

The lights are controlled by a switch next to the interphone jack on the forward post of the compartment loading door-way.

4. Smoke Detector Unit

A space type smoke detector unit (Ref. 26-13-00), is fitted to the rear bulkhead of the compartment, in the upper right-hand corner. The detector unit is connected to a SMOKE DETECT caption light at the 3CM station in the flight compartment.

5. Floor Panels (Ref. Fig. 001)

The floor panels consist of a sandwich panel arrangement of balsa wood core and upper and lower aluminium alloy skins. Lashing and net attachment fittings, attached to the floor support structure, protrude through holes in the floor panels and fit flush with the panel upper surfaces. Panels in the floor give access to the components in the underfloor compartment.

6. Thermal Insulation

The compartment sidewalls, roof, and rear bulkhead, are lined with insulation blankets. Each blanket consists of layers of glass wool contained in a reinforcing fabric with an outer skin of non-porous, fire-proof, non- plastic film.

The blankets are fabricated to include various attaching agents such as zip fasteners, self attaching tape, nylatch grommets and attachment plungers. The blankets are also retained on the structure surface by being sandwiched between sections of aircraft system components secured over them, and the compartment furnishing panels.

7. Sidewall Panels

The sidewall panels overlap each other at their vertical edges, and are secured to fuselage frame attachment brackets, floor sealing fittings, and roof/sidewall edge members,

by special mushroom headed bolts, washers and nuts. Two vertical rows of net attachment fittings, arranged on each side of the compartment, are each secured by two bolts, which also attaches the fittings and the sidewall panels to the appropriate fuselage frame brackets. These panels give access to air cooling ducts (Ref. 21-24-00), which pass down the walls between the rear surface of the panel and the thermal insulation blankets.

8. Bulkheads

The furnishing panels of the rear bulkhead, which is also the rear pressure bulkhead and the front wall of No. 11 fuel tank, are secured to the bulkhead structure by captive nuts, washer and bolt attachments. Removal of the panels give access to the hydraulic system pipes, control cables and insulation blankets, and a vapour seal membrane which collects and drains overboard any fuel leakage from the bulkhead.

The forward bulkhead comprises two vertical side panels flanking an access door and surmounted by two horizontal top panels. Each panel which is honeycomb cored with aluminium skins, is bolted to the bulkhead framework. A reinforcing beam, extending the width of the bulkhead, at the joint between the side and top panels, is bolted to the forward face. On either side of the bulkhead are access panels to the electrical equipment racks located in the rear vestibule.

9. Roof Panels

The roof panels are secured by bolt, washer and captive nut attachments to roof/sidewall edge members, which run longitudinally along each side of the compartment, and roof support members at each fuselage frame location.

The forward panel, forms a cover for the main passenger oxygen supply cylinders, located in a stowage crate in the compartment roof (Ref. 25-53-14, 35-11-00). The roof panels contain apertures for the strip light assemblies and access panels; the rear panel accomodates the overhead runner for the luggage door central support roller assembly. Removal of the panels give access to the main passenger oxygen supply cylinders, insulation blankets and air cooling ducts.

10. Baggage Retaining Nets (Ref. Fig. 002)

Nets are provided to retain the stowed freight and keep it clear of the compartment door. Each net comprises a vinyl clad grid of horizontal and vertical nylon webbing straps, which

can be tensioned by buckles. The horizontal straps of the doorway net are reinforced with steel wire cables.

The doorway net is installed by inserting the six fittings on the aft edge of the net into the attachment points on the rear bulkhead and floor. The uppermost aft fitting and its associated attachment point are coloured yellow to assist identification and installation. The net may then be rolled and secured with retaining straps on the aft side of the doorway until required.

When required for use, the net is released from the straps, unrolled across the doorway and secured on the forward side of the door by engaging the six fittings on the free edge of the net with the net attachment arms which must be swung into position to receive them. The net should then be tensioned. Baggage should not protrude beyond the net attachment points as this may prevent the operation of the up-and-over door.

B NOTE: The above net is superseded by one of open mesh con-
B struction. The reinforced steel wire cables are
B replaced with triple web straps. Net installation
B is similar to the superseded nets, but the net may be
B stowed by clipping the hook fitting on the third from
B top horizontal strap onto the smoke detector and flood
R B light grille fitted to the aft bulkhead.

B The net is tensioned by first tightening the six
B horizontal buckles followed by the buckles on the two
B outer vertical straps.

11. Doorway Barrier Strap

A spring loaded, retractable strap fitted to the bulkhead can be extended across the doorway and clipped to a door net attachment fitting on the forward side of the door aperture to act as a restraint.

12. Diplomatic Locker

A diplomatic locker is fitted on the RH side of the baggage hold immediately forward of the loading door. The locker has a hinged door secured with a latch that can be padlocked.

B NOTE: The diplomatic locker has been removed from A/C
B (Mod No. CM.42076).

UPPER BAGGAGE COMPARTMENT - INSPECTION/CHECK

WARNING: OXYGEN BOTTLES ARE STORED IN THE ROOF OF THE COMPARTMENT. MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. IT IS THEREFORE NECESSARY TO KEEP THE AREA IN THE VICINITY OF OXYGEN EQUIPMENT CLEAN AND FREE FROM CONTAMINATION.

1. General

The compartment is furnished with non-metallic roof, sidewall and rear bulkhead. The front bulkhead and floor panels are light alloy skinned. The following items are fitted in the compartments: netting attachments, doorway safety strap, smoke detector, door floodlight, rooflights, divider and doorway nets.

2. Inspection/Check

A. Preparation

(1) Open the compartment door 844 and lock it in the open position, turn the compartment light switch to "ON".

B. Inspection

(1) Ensure that the compartment is clean.

(2) Inspect all furnishing and floor panels for damage.

(3) Inspect all netting attachments and floor rail lashing points for corrosion, cracks and damage.

R (4) Inspect the doorway net and the transverse (2) and longitudinal divider nets:

R (a) Attachment fittings for security and breakage.

R (b) Vertical and horizontal webbing straps for broken stitching, fraying, tears and contamination.

R (c) Vinyl cladding for damage.

R (5) Inspect all roof lights and the smoke detector/floodlight assembly for corrosion, cracks and damage.

R (6) Inspect the oxygen furnishing panels, in the forward roof area, for cracks and damage and for security of

the gas tight joint.

R (7) Inspect the doorway safety strap, divider and doorway nets for damage.

C. Check

(1) Check all furnishing and floor panels for security.

(2) Check all netting attachments, roof lights, smoke detector/floodlight assembly and doorway safety strap for security.

R (3) Check that all net:

R (a) Cam buckles operate satisfactorily.

R (b) Attachment fittings engage in roof, floor
R and sidewall attachment points.

R (4) Check the doorway safety strap, divider and doorway nets for operation.

R (5) Check the forward bulkhead access panel latches for operation and security.

R (6) Check the following warning labels for legibility and adherence:- No smoking, Light Intercom, Leave Switch in Normal Position, Stowage for Door Inner Handle, Upper Hold Loading Data and the Important label on the doorway net.

R (7) Place the light switch to "OFF".

R (8) Vacate the compartment and close the door 844.

Printed in England

R **ON A/C 006-007,

UPPER BAGGAGE COMPARTMENT SIDEWALL PANELS REMOVAL/INSTALLATION

WARNING: OXYGEN BOTTLES ARE STOWED IN THE BAGGAGE COMPARTMENT ROOF. MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. IT IS THEREFORE NECESSARY TO KEEP THE AREA IN THE VICINITY OF OXYGEN EQUIPMENT CLEAN AND FREE FROM CONTAMINATION.

1. General

There are six sidewall panels, three on the left hand and three on the right hand side. The panels prevent damage to the insulation blankets and services which are situated between the panels and the aircraft skin in that part of the compartment forward of the door.

2. Sidewall Panels (Ref. Fig.401 and 402)

NOTE: The forward and rear sidewall panels must be removed before removing the centre panel.

A. Preparation

(1) Open door 844 to gain entry to the compartment, and switch on the compartment lights.

B. Remove Forward Panel

(1) Remove the bolts and dimpled washers securing both the vertical and the horizontal edges of the panel.

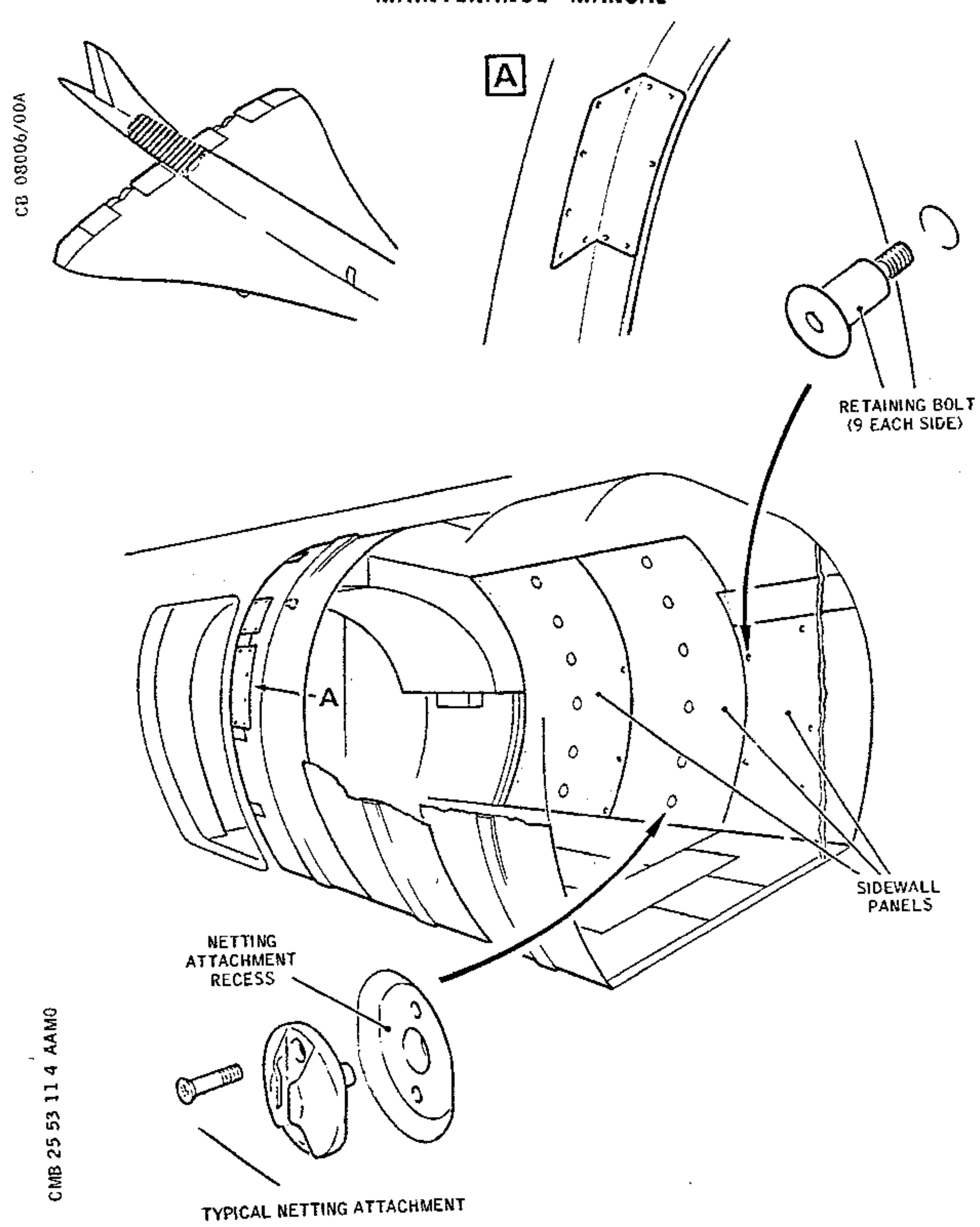
(2) Remove the six hexagon recess-headed bolts, four from the vertical centre line and two from the rear vertical edge of the panel.

(3) Carefully remove the panel and place it on a suitable stand.

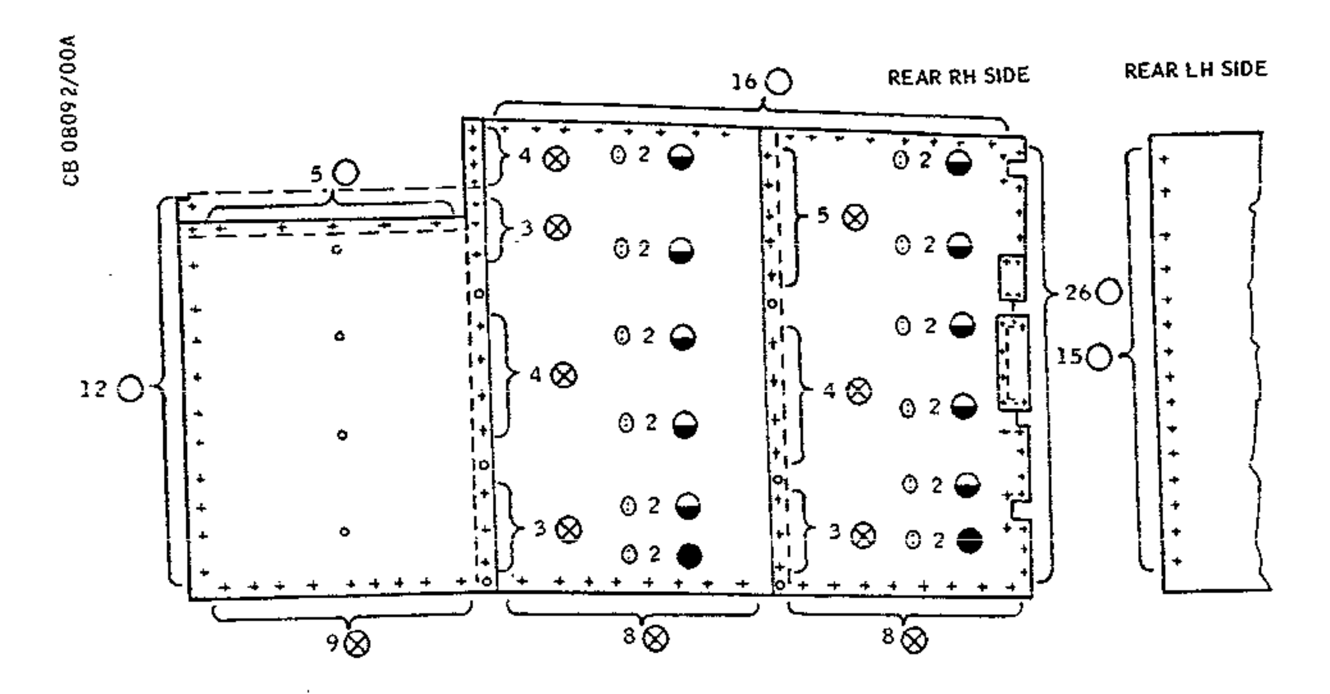
C. Remove Rear Panel

(1) Remove the bolts and dimpled washers securing the upper and lower access panels on the rear RH side-wall panel, remove the access panels.

(2) Remove the bolts and dimpled washers securing the horizontal edges of the panel.



Sidewall Panels
Figure 401



SYMBOL	LENGTH 'L' ins	mm	THREAD SIZE	
○	0.375	9.53	0.1640-32	UNJC
⊗	0.56	12.85	10-32	UNJF
◒	0.56	12.85	0.1900-32	UNJF
●	0.50	12.70		

'L'

CMB 25 53 11 4 BAM0

Bolting Chart
Figure 402

(3) Remove the bolts and dimpled washers and the three hexagon recess-headed bolts securing the vertical edges of the panel.

(4) Support the panel and remove the bolts and netting attachments, remove the panel and place it on a suitable stand.

D. Remove Centre Panel

(1) Remove the bolts and dimpled washers securing the horizontal edges of the panel.

(2) Remove the four bolts and dimpled washers from the oxygen pack furnishing panel.

(3) Support the panel and remove the bolts and netting attachments; remove the panel and place it on a suitable stand.

E. Prepare to Install

(1) Ensure that all exposed sidewall air ducts, and insulation blankets are undamaged. Also ensure that the panels are undamaged and the associated anchor nuts are serviceable, that the inserts are secure and the rubber seals are intact.

F. Install Centre Panel

<u>NOTE</u>: The centre sidewall panel must be installed before the forward and rear panels.

(1) Position the panel and ensure that the upper part of the forward edge of the panel is located under the oxygen pack furnishing panel.

(2) Locate the dimpled washers and fit the four bolts at the rear of the oxygen pack furnishing panel. Do not tighten the bolts at this stage.

(3) Locate the netting attachments and fit the securing bolts. Do not tighten the bolts at this stage.

(4) Fit the hexagon recess-headed bolts, four on the vertical centre line and two on the rear vertical edge of the panel. Do not tighten the bolts at this stage.

G. Install Forward Panel

(1) Position the panel with its upper horizontal edge located under the oxygen pack furnishing panel and the rear vertical edge overlapping the centre panel.

(2) Locate the dimpled washers and fit the bolts securing the horizontal and vertical edges of the panel. Do not tighten the bolts at this stage.

(3) Fit the hexagon recess-headed bolts, four on the vertical centre line and two at the rear vertical edge of the panel. Do not tighten the bolts at this stage.

H. Install Rear Panel

(1) Position the panel so that the cut-outs on the RH panel rear edge fit round the bulkhead netting attachment fittings and the front edge overlapping the rear edge of the centre panel.

(2) Locate the netting attachments and fit the securing bolts. Do not tighten the bolts at this stage.

(3) Locate the dimpled washers and fit the bolts securing the horizontal edges of the panel. Do not tighten the bolts at this stage.

(4) Locate the dimpled washers and fit the bolts securing the vertical edges of the panel, also fit the hexagon recess-headed bolts at the front vertical edge of the panel. Do not tighten the bolts at this stage.

(5) Position the access panels; locate the dimpled washers and fit the securing bolts. Do not tighten the bolts at this stage.

NOTE: When the centre panel has not been disturbed the forward or rear panels may be secured individually.

(6) Progressively hand tighten all securing bolts.

(7) Switch off the lights and close door 844.

R **ON A/C 001-005,

UPPER BAGGAGE COMPARTMENT SIDEWALL PANELS - REMOVAL/INSTALLATION

WARNING: OXYGEN BOTTLES ARE STOWED IN THE BAGGAGE COMPARTMENT ROOF. MANY MATERIALS, PARTICULARLY PAINT, OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. IT IS THEREFORE NECESSARY TO KEEP THE AREA IN THE VICINITY OF OXYGEN EQUIPMENT CLEAN AND FREE FROM CONTAMINATION.

1. General

There are six sidewall panels, three on the left hand and three on the right hand side. The panels prevent damage to the insulation blankets and services which are situated between the panels and the aircraft skin in that part of the compartment forward of the door.

2. Sidewall Panels (Ref. Fig.401 and 402)

NOTE: The forward and rear sidewall panels must be removed before removing the centre panel.

A. Prepare to Remove

(1) Open door 844 to gain entry to the compartment, and switch on the compartment lights.

(2) If necessary remove the diplomatic mail locker (Ref. 25-53-19, Removal/Installation).

B. Remove Forward Panel

(1) Remove the bolts and dimpled washers securing both the vertical and the horizontal edges of the panel.

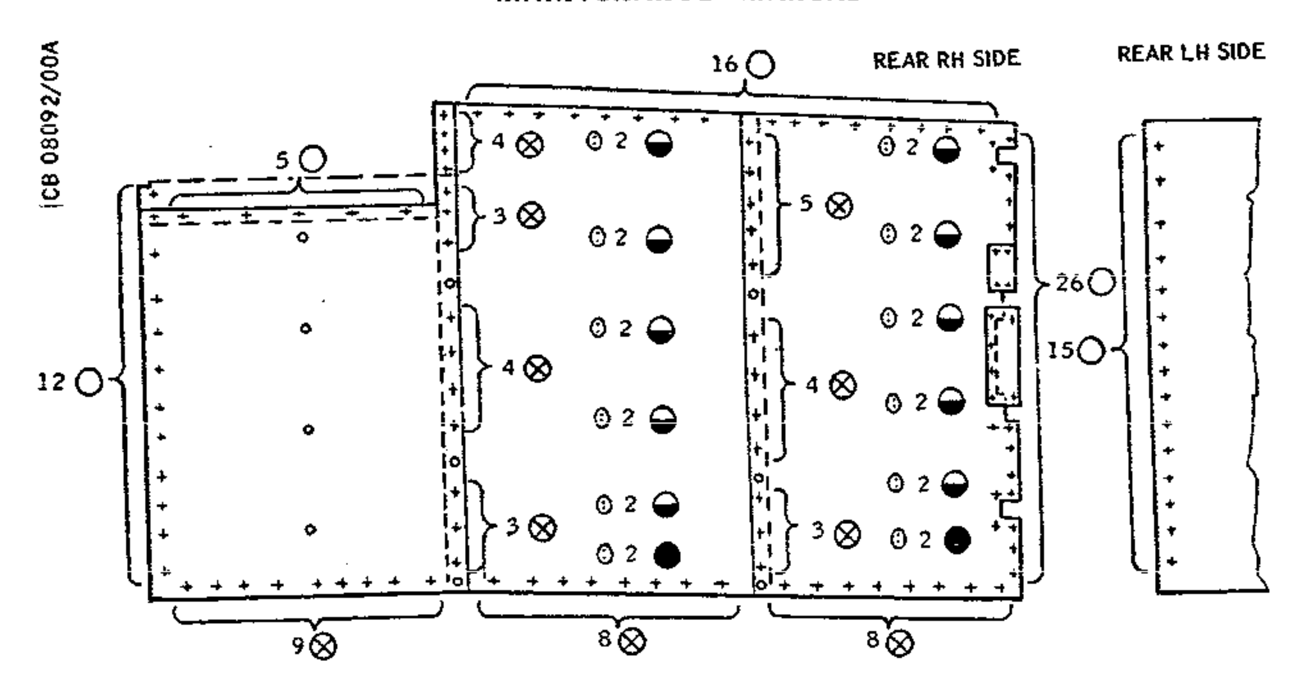
(3) Remove the six hexagon recess-headed bolts, four from the vertical centre line and two from the rear vertical edge of the panel.

(4) Carefully remove the panel and place it on a suitable stand.

C. Remove Rear Panel.

(1) Remove the bolts and dimpled washers securing the upper and lower access panels on the rear RH sidewall panel; remove the access panels.

Sidewall Panels
Figure 401



SYMBOL	LENGTH 'L' ins	LENGTH 'L' mm	THREAD SIZE	
○	0.375	9.53	0.1640-32	UNJC
⊗	0.56	12.85	10-32	UNJF
◓	0.56	12.85	0.1900-32	UNJF
●	0.50	12.70	0.1900-32	UNJF

'L'

CMB 25 53 11 4 DAMO

Bolting Chart
Figure 402

(2) Remove the bolts and dimpled washers securing the horizontal edges of the panel.

(3) Remove the bolts, dimpled washers and the three hexagon recess headed bolts securing the vertical edges of the panel.

(4) Support the panel and remove the bolts and netting attachments. Note the positions for subsequent installation; remove the panel and place it on a suitable stand.

D. Remove Centre Panel.

(1) Remove the bolts and dimpled washers securing the horizontal edges of the panel.

(2) Remove the four bolts and dimpled washers from the oxygen pack furnishing panels.

(3) Support the panel and remove the bolts and netting attachments; remove the panel and place it on a suitable stand.

E. Prepare to Install.

NOTE: The centre sidewall panel must be installed before the forward and rear panel.

(1) Ensure that the exposed sidewall air ducts and insulation blankets are undamaged. Also ensure that the panels are undamaged and the associated anchor nuts are serviceable, that the inserts are secure and the rubber seals are intact.

F. Install Centre Panel.

(1) Position the panel and ensure that the upper part of the forward edge of the panel is located under the oxygen pack furnishing panel.

(2) Locate the dimpled washers and fit the four bolts at the rear of the oxygen pack furnishing panel. Do not tighten the bolts at this stage.

G. Install Forward Panel.

(1) Position the panel with its upper horizontal edge located under the oxygen pack furnishing panel and the rear vertical edge overlapping the centre panel.

(2) Locate the dimpled washers and fit the bolts securing the horizontal and vertical edges of the panel. Do not tighten the bolts at this stage.

(3) Fit the hexagon recess-headed bolts, four on the vertical centre line and two on the rear vertical edge of the panel. Do not tighten the bolts at this stage.

H. Install Rear Panel.

(1) Position the panel so that the cut-outs on the RH panel rear edge fit round the bulkhead netting attachments fittings and the front edge overlaps the rear edge of the centre panel.

(2) Locate the netting attachments and fit the securing bolts. Ensure that the special netting attachment is located at the position noted on removal. Do not tighten the bolts at this stage.

(3) Locate the dimpled washers and fit the bolts securing the horizontal edges of the panel.

(4) Locate the dimpled washers and fit the bolts securing the vertical edges of the panel, also fit the three hexagon recess headed bolts at the forward vertical edge of the panel.

(5) Position the access panels and locate the dimpled washers and fit the securing bolts. Do not tighten the bolts at this stage.

NOTE: When the centre panel has not been disturbed the forward and rear panels can be secured independantly.

(6) Progressively hand-tighten all retaining bolts.

(7) If necessary install the diplomatic mail locker (Ref.25-53-19, Removal/Installation).

(8) Switch off the lights and close door 844.

UPPER BAGGAGE COMPARTMENT SIDEWALL PANELS - APPROVED REPAIR

WARNING: ANY SIDEWALL PANEL WITH BOTH SKINS AND THE CORE DAMAGED MUST BE REPAIRED BEFORE THE NEXT FLIGHT OF THE AIRCRAFT TO PRESERVE THE FIRE RESTRAINT PROPERTIES OF THE PANEL.

OXYGEN BOTTLES ARE STOWED IN THE COMPARTMENT ROOF. MANY MATERIALS, PARTICULARLY OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. IT IS THEREFORE NECESSARY TO KEEP THE AREA IN THE VICINITY OF OXYGEN EQUIPMENT CLEAN AND FREE FROM CONTAMINATION.

1. General

The three sidewall panels fitted to each side of the compartment forward of the door are Coolag Nilflam cored between two glass cloth skins. The panels are subject to impact damage during baggage handling. The degree of damage dictates the manner and priority of the repair.

2. Panel Repair - Both Skins Punctured (Ref. Fig. 801)

A. Materials and Equipment

DESCRIPTION	PART NO.
Glasscloth BS 3396-3-P6-22 0.006 in (0.152 mm) (Ref. 20-30-00, No. 129)	-
Filler EC 3524 A/B (CM 141) (Ref. 20-30-00, No. 381)	-
Timonox (Powder) fire retardant (Ref. 20-30-00, No. 148)	-
Flammex T23P (Liquid) fire retardant (Ref. 20-30-00, No. 149)	-
R R Adhesive Bakelite/Versamid 140 (Ref. 20-30-00, Nos. 303, 305)	-
Garnet paper 150/180 grade	-

DESCRIPTION	PART NO.
Solvent BAC M302 (Ref. 20-30-00, No. 473)	-

B. Limitations

(1) On panels which have both skins and the Coolag Nilflam core damaged, the damage must be contained within a 5.0 in (127.0 mm) dia circle and must not be less than 4.0 in (101.6 mm) from the edge of the panel or the edge of the netting attachment recesses.

(2) Repairs must be at least four times the repair max dimension apart.

NOTE: There is no limit on the number of repairs on a single panel, provided the limitations are observed.

C. Prepare

(1) If necessary remove the damaged panel (Ref. 25-53-11, Removal/Installation).

D. Repair

(1) Cut out the damaged skins and core to a uniform shape.

NOTE: Remove only the minimum of material to effect the repair.

(2) Remove all debris and dust from the area.

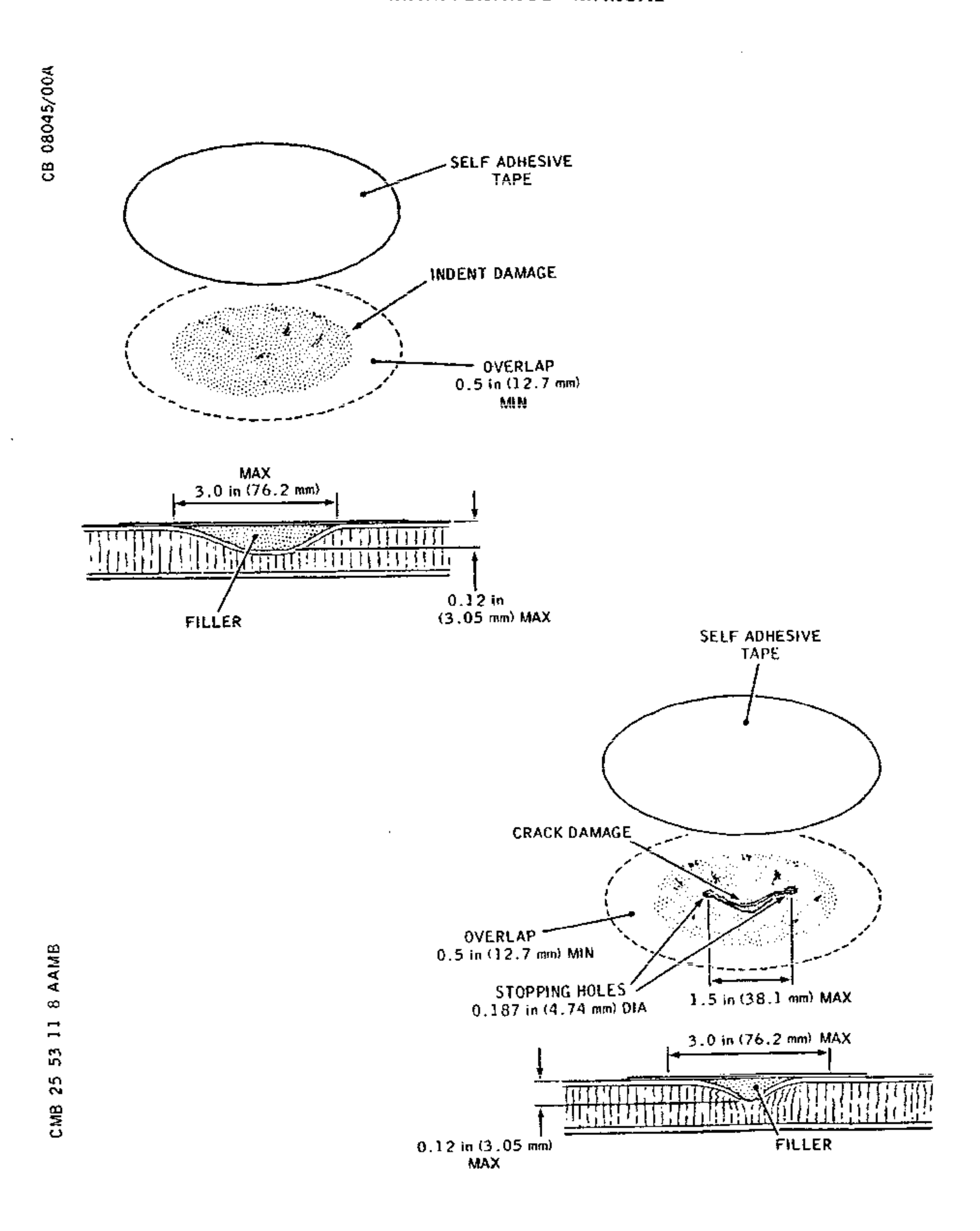
(3) Clean the area using a clean dry tissue moistened with solvent then wipe the surfaces dry with a clean dry tissue.

(4) Dry abrade the exposed surface of the inner skin to a fine matt finish.

(5) Remove all dust from the location.

(6) Clean the area using a clean dry tissue moistened with solvent, then wipe the surface dry with a clean

Sidewall Panels - Approved Repairs -
Sheet 1 of 2
Figure 801



Sidewall Panels - Approved Repairs -
Sheet 2 of 2
Figure 801

dry tissue.

(7) Cut two laminations of glasscloth to fit the exposed surface of the inner skin, lay up the two laminations impregnated with adhesive (Ref. 20-25-14).

(8) Allow the adhesive to gel then cure for a minimum of 4 hours at 70 deg C 158 deg F or for 24 hours at 20 deg C 68 deg F.

E. Prepare Filler Mix (CM141)

MATERIAL	CONSTITUENT	PROPORTION (BY WEIGHT)
Accelerator	EC 3524A	94 parts
Base	EC 3524B	100 parts
Timonox (Powder) fire retardant		4 parts
Flammex (Liquid) fire retardant		3 parts

NOTE: The above proportions give a pot life of 70-80 min at 25 deg C (77 deg F).

(1) Add the Timinox (powder) to the Flammex (liquid) and stir until a uniform white paste is obtained.

(2) Calculate 10% of the total weight of the EC 3524 parts A and B, then weigh out this amount from the pre-mixed Timinox/Flammex paste.

(3) Add the paste to the base and mix until all traces of the paste have merged and a uniform pale blue colour is obtained.

(4) Add the accelerator to the mix and stir until a uniform pale blue colour is attained.

F. Apply Filler Mix

(1) Fill the damaged area with the filler mix using a spatula. Smooth off flush with the panel contour.

(2) Allow the filler to cure for a minimum of 4 hours at 20 deg C (68 deg F).

G. Complete Repair

(1) Clean the area using a clean dry tissue moistened with solvent, then wipe the surface dry with a clean dry tissue.

(2) Dry abrade the repair surface including 0.5 in (12.7 mm) of the undamaged surrounding skin to a fine matt finish using Garnet paper.

(3) Remove the dust and clean the area using a clean dry tissue moistened with solvent, then wipe the surface dry with a clean dry tissue.

(4) Cut two laminations of glasscloth to give a minimum overlap of 0.5 in (12.7 mm) over the repair area. Lay up the two laminations impregnated with adhesive (Ref. 20-25-14).

(5) Allow the adhesive to gel, then cure for a minimum of 4 hours at 70 deg C (158 deg F) or for 24 hours at 20 deg C (68 deg F).

(6) If necessary install the repaired panel (Ref. 25-53-11, Removal/Installation).

3. Panel Repair - One Skin Punctured (Ref. Fig. 801)

A. Materials and Equipment

DESCRIPTION	PART NO.
Glasscloth BS 3396-3-P6-22 0.006 in (0.152 mm) (Ref. 20-30-00, No. 129)	-
Filler EC 3524 A/B (CM141) (Ref. 20-30-00, No. 381)	-
Timonox (Powder) fire retardant (Ref. 20-30-00, No. 148)	-
Flammex (Liquid) fire retardant (Ref. 20-30-00, No. 149)	-

DESCRIPTION	PART NO.
R Adhesive Bakelite/Versamid 140 R (Ref. 20-30-00, Nos. 303, 305)	-
Garnet paper 150/180 grade	-
Solvent BAC M302 (Ref. 20-30-00, No. 473)	-

B. Limitations

(1) On panels which have one skin and the Coolag Niflam core damaged, the damage must be contained within a 5.0 in (127.0 mm) dia. circle and must not be less than 4.0 in (101.6 mm) from the edge of the panel or the edge of the netting attachment recesses.

(2) Repairs must be at least four times the repair diameter apart.

NOTE: There is no limit on the number of repairs on a single panel, provided the limitations are observed.

C. Repair

(1) Cut out the damaged skin and core to a uniform shape.

NOTE: Remove only the minimum of material to affect the repair.

(2) Remove all debris and dust from the area.

(3) Clean the area using a clean dry tissue moistened with solvent, then wipe the surface dry with a clean dry tissue.

D. Prepare Filler Mix (CM141)

MATERIAL	CONSTITUENT	PROPORTION (BY WEIGHT)
Accelerator	EC 3524A	94 parts

MATERIAL	CONSTITUENT	PROPORTION (BY WEIGHT)
Base	EC 3524B	100 parts
Timonox (Powder) fire retardant		4 parts
Flammex (Liquid) fire retardant		3 parts

NOTE: The above proportions give a pot life of between 70 and 80 mins at 25 deg C (77 deg F)

(1) Add the Timonox (powder) to the Flammex (liquid) and stir until a uniform white paste is attained.

(2) Calculate 10% of the total weight of the EC 3524 part A and B then weigh out this amount from the pre-mixed Timonox/Flammex paste.

(3) Add the paste to the base and mix until all traces of the paste has been merged and a uniform pale blue colour is attained.

(4) Add the accelerator to the mix and stir until a uniform pale blue colour is attained.

E. Apply Filler Mix.

(1) Fill the damaged area with the filler mix using a spatula. Smooth off flush with the panel contour.

(2) Allow the filler to cure for a minimum of 4 hours at 20 deg C (68 deg.F).

F. Complete Repair

(1) Clean the area using a clean dry tissue moistened with solvent, then wipe the surface dry with a clean dry tissue.

(2) Dry abrade the repair surface including 0.5 in (12.7 mm) of the undamaged surrounding skin to a fine matt finish using garnet paper.

(3) Remove the dust and clean the area using a clean

dry tissue moistened with solvent, then wipe the surface dry with a clean dry tissue.

(4) Cut two laminators of glasscloth to give a minimum overlap of 0.5 in (12.7 mm) over the repair area, lay up the two laminations impregnated with adhesive (Ref. 20-25-14).

(5) Allow the adhesive to gel, then cure for a minimum of 4 hours at 70 deg C (158 deg.F) or for 24 hours at 20 deg C (68 deg.F).

4. Panel Repair - Indentation (Ref. Fig. 801)

A. Materials and Equipment.

DESCRIPTION	PART NO.
Filler EC 3524 A/B (CM 141) (Ref.20-30-00, No. 381)	-
Timonox (Powder) fire retardant (Ref.20-30-00, No.148)	-
Flammex (Liquid) fire retardant (Ref.20-30-00, No.149)	-
Tape 3Ms Spec No.428B (Ref.20-30-00, No. 140)	SPEED TAPE
Solvent BAC M302 (Ref. 20-30-00, No 473)	-

B. Limitations.

(1) On panels which have indentation damage of 0.12 in (3.04 mm) deep, the damage must be within a 3.0 in (76.2 mm) dia circle and must not be less than 4.0 in (101.6 mm) from the edge of the panel or the edge of the netting attachment recesses.

(2) Repairs must be at least four times the repair diameter apart.

NOTE: There is no limit on the number of repairs on a panel, provided the limitations are observed.

C. Repair

(1) Clean the damaged area using a clean dry tissue moistened with solvent then wipe the surface dry with a clean dry tissue.

D. Prepare Filler Mix (CM 141)

MATERIAL	CONSITITUENT	PROPORTION (BY WEIGHT)
Acceleration	EC 3524A	94 parts
Base	EC 3524B	100 parts
Timonox (Powder) fire retardant		4 parts
Flammex (Liquid) fire retardant		3 parts

NOTE: The above proportions give a pot life of between 70 and 80 mins at 25 deg C (77 deg F).

(1) Add the Timonox (powder) to the Flammex (liquid) and stir until a uniform white paste is attained.

(2) Calculate 10% of the total weight of the EC 3524 parts A and B and weigh out this amount from the pre-mixed Timonox/Flammex paste.

(3) Add the paste to the base and mix until all traces of the paste have merged and a uniform pale blue colour is attained.

(4) Add the accelator to the mix and stir until a uniform pale blue colour is attained.

E. Apply Filler Mix.

(1) Fill the damaged area with the filler mix using a spatula. Smooth off flush with the contour of the panel.

(2) Allow the filler to cure for a minimum of 4 hours at 20 deg.C (68 deg.F).

F. Complete Repair.

(1) Clean the area using a clean dry tissue moistened with solvent, then wipe the surface dry with a clean dry tissue.

(2) Cut to shape the self adhesive tape to give a minimum overlap of 0.5 in (12.7 mm) over the repair area and apply the tape to the area.

5. Panel Repair - Crack

A. Equipment and Material

DESCRIPTION	PART NO.
Filler EC 3524 A/B (CM 141) (Ref.20-30-00, No. 381)	-
Timonox (Powder) fire retardant (Ref.20-30-00, No. 148)	-
Flammex (Liquid) fire retardant (Ref.20-30-00, No. 149)	-
Tape 3 Ms Spec No 428B (Ref. 20-30-00, No 140)	SPEED TAPE
Solvent, BACM 302 (Ref. 20-30-00, No 473)	-

B. Limitations

(1) On panels which have crack damage up to 1.5 in (38.1 mm) in length, the damage must be contained within a 3.0 in (76.2 mm) dia circle and the 0.187 in (4.74 mm) dia crack stopping holes must not be less than 4.0 in (101.6 mm) from the edge of the panel or the edge of the netting attachment recesses.

(2) Repairs must be at least four times the repair diameter apart.

NOTE: There is no limit on the number of repairs on a single panel, provided the limitations are observed.

C. Repair.

(1) Drill a 0.187 in (4.74 mm) dia stopping hole at each end of the crack. Ensure that the stopping holes penetrate the outer skin only and that the crack terminates in the stopping holes.

(2) Remove the debris and dust from the area.

(3) Clean the area using a clean dry tissue moistened with solvent, then wipe the surface dry with a clean dry tissue.

D. Prepare Filler Mix (CM 141)

MATERIAL	CONSITITUENT	PROPORTION (BY WEIGHT)
Accelerator	EC 3524A	94 parts
Base	EC 3524B	100 parts
Timonox (Powder) fire retardant		4 parts
Flammex (Liquid) fire retardant		3 parts

NOTE: The above proportions give a pot life of between 70 and 80 mins at 25 deg C (77 deg F).

(1) Add the Timonox (powder) to the Flammex (liquid) and stir until a uniform white paste is attained.

(2) Calculate 10% of the total weight of the EC 3524 parts A and B and weigh out this amount from the pre-mixed Timonox/Flammex paste.

(3) Add the paste to the base and mix until all traces of the paste have merged and a uniform pale blue colour is attained.

(4) Add the accelerator to the mix and stir until a uniform pale blue colour is attained.

E. Apply Filler Mix.

(1) Fill the crack area including the stopping holes with the filler mix using a spatula. Smooth off flush with the panel contour.

(2) Allow the filler to cure for a minimum of 4 hours at 20 deg.C (68 deg.F).

F. Complete Repair.

(1) Clean the area using a clean dry tissue moistened with solvent, then dry the surface with a clean dry tissue.

(2) Cut to shape the self adhesive tape to give an overlap of 0.5 in (12.7 mm) over the repair area and apply the tape to the area.

FURNISHING PANELS (REAR BULKHEAD) - REMOVAL/INSTALLATION

1. General

Three furnishing panels are secured to the support structure on the forward face of the rear pressure bulkhead. The panels, which are located on the left-hand and right-hand sides and central on the bulkhead immediately above floor level, protect the thermal insulation blankets, system components and No.11 fuel tank vapour seal from damage. Each panel incorporates a sealing strip which contributes to providing a sealed baggage compartment.

2. Rear Bulkhead Panels (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-

B. Prepare

(1) Trip the following circuit breakers and fit safety clips.

SERVICE	PANEL	CIRCUIT BREAKER	MAP REF
SMOKE DETECT CABIN SYS SUP	5-213	W331	D16
AFT BAGGAGE DOOR FLOOD LT SUP	25-216	L765	C4

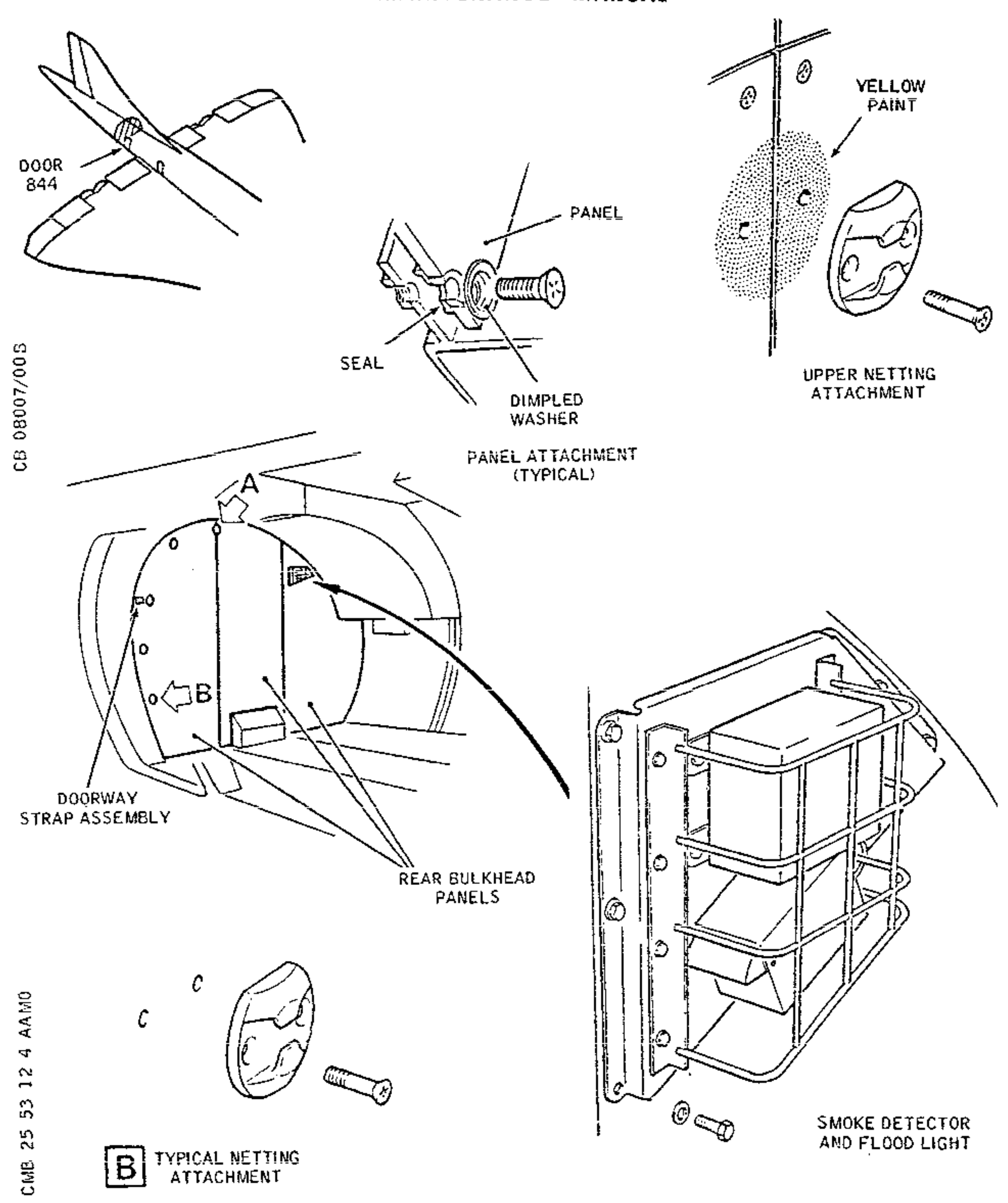
(2) Open door 844 and lock it in the open position.

(3) Switch 'on' the compartment light.

C. Remove

(1) On the left-hand panel, remove the smoke detector (Ref.26-13-11, Removal installation).

(2) Disassemble the smoke detector electrical connector (Ref.WDM 20-42-34).



Rear Bulkhead Furnishing Panels
Figure 401

(3) Remove the door floodlight (Ref. 33-31-00 Removal/ Installation).

(4) Remove the five bolts and washers securing the smoke detector/floodlight bracket. Remove the bracket.

(5) On the right-hand or centre panel remove the two bolts securing the upper netting attachment. Remove the attachment.

(6) On the right-hand panel remove the bolts securing the five netting attachments and the bolts securing the doorway safety strap assembly. Remove the attachments and strap assembly.

(7) Remove the bolts and dimpled washers securing each panel. Remove the panel.

NOTE: On the left-hand panel, feed the electrical cables through the grommet as the panel is removed.

D. Install

(1) Comply with the electrical safety precautions.

(2) Ensure that all exposed insulation blankets and services are undamaged.

(3) Ensure that the panels, seals and the cable grommet are undamaged, and all associated anchor nuts are serviceable.

(4) Position the panels, locate the dimpled washers and fit the bolts securing the panel to the structure. Do not tighten the bolts at this stage.

NOTE: On the left-hand panel, feed the smoke detector/floodlight electrical cable through the grommet as the panel is being positioned.

(5) On the left-hand panel position the smoke detector/ floodlight bracket and secure it with the five bolts and washers. Do not tighten the bolts at this stage.

(6) Assemble the smoke detector electrical connector (Ref. WDM 20-42-34).

(7) Install the smoke detector (Ref. 26-13-11, Removal/ Installation).

(8) Install the door floodlight (Ref. 33-31-00, Removal/ Installation).

(9) On the right-hand or centre panel, position the upper netting attachment and secure it with the bolts. Do not tighten the bolts at this stage.

(10) On the right-hand panel position the five netting attachments and the doorway safety strap assembly, secure them with the bolts.

(11) Progressively hand tighten all securing bolts.

(12) Reset the circuit breakers previously tripped.

(13) Switch 'off' the compartment light, vacate the compartment and close door 844.

UPPER BAGGAGE COMPARTMENT ROOF PANELS - REMOVAL/INSTALLATION

R **ON A/C 007-007,

1. General (Ref. Fig. 401)

There are two panels bolted to the compartment roof structure Each panel houses three roof lights. The forward roof panel is also bolted to the air conditioning non-return valve. Both panels protect the insulation blankets and services which are located between the panels and the aircraft skin.

R **ON A/C 001-006,

1. General (Ref. Fig. 402)

There are two panels bolted to the compartment roof structure. Each panel houses three roof lights. Both panels are also bolted round the netting attachment brackets and the forward panel is bolted to the air conditioning non-return valve. Both panels protect insulation blankets and services which are located between the panels and the aircraft skin.

2. Roof Panels

A. Prepare to Remove

(1) Open the compartment door 844 and lock it in the open position.

(2) Make available a flameproof lead lamp.

(3) Remove the roof lights from the panels (Ref. 33-31-00, Removal/Installation).

R **ON A/C 007-007,

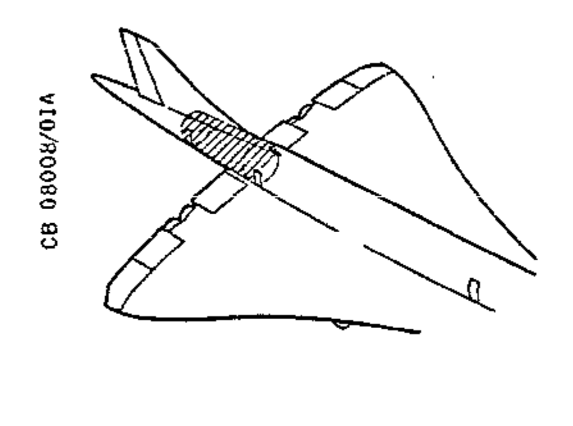
B. Remove

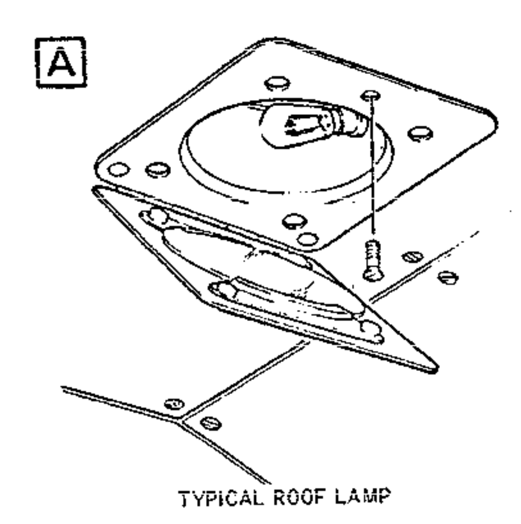
(1) On the forward panel, remove the four bolts securing the panel to the air conditioning non-return valve.

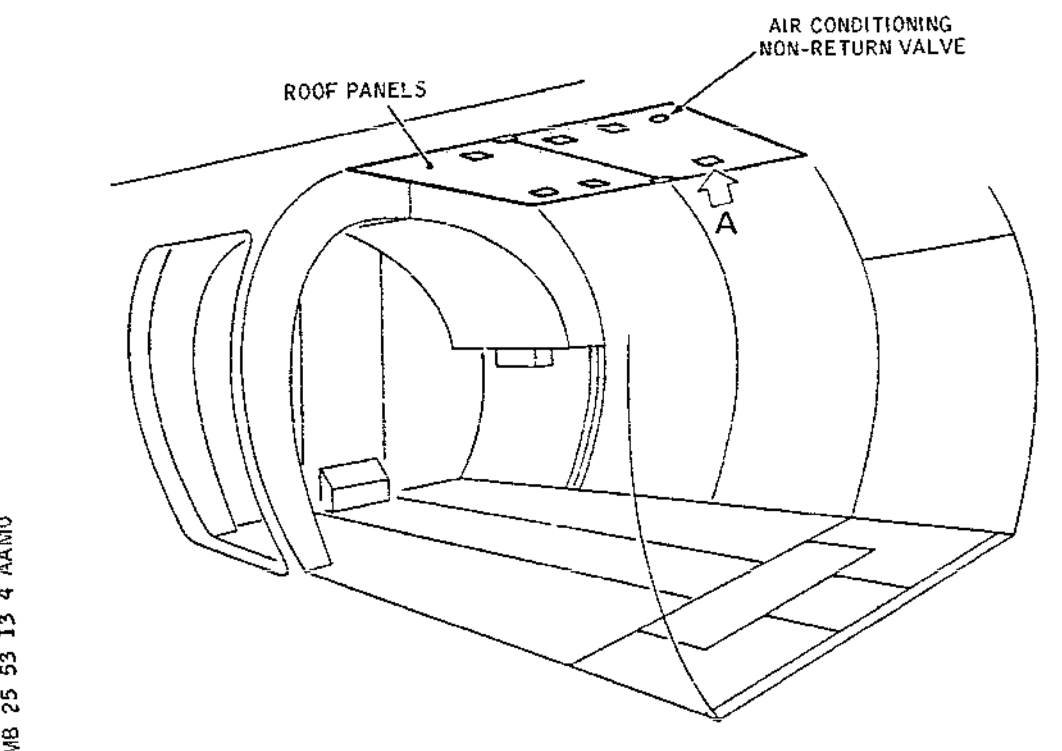
(2) Support the panel and remove the bolts and dimpled washers securing the panel to the roof support structure; remove the panel.

R **ON A/C 001-006,

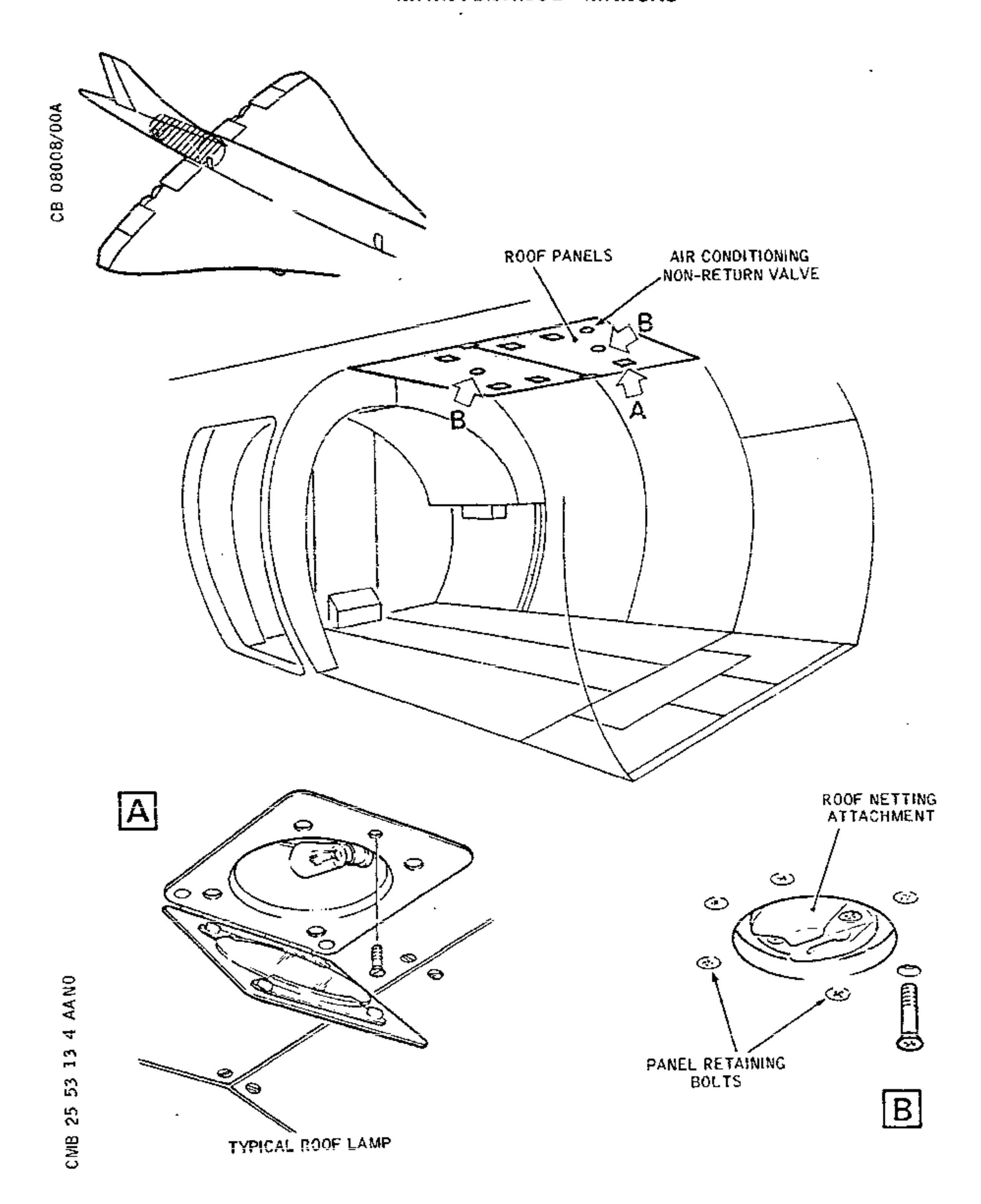
B. Remove







Roof Panels
Figure 401



Roof Panels
Figure 402

(1) Disconnect and remove the transverse and longitudinal divider nets, if fitted.

(2) On the forward panel, remove the four bolts securing the panel to the air conditioning non-return valve and the six bolts from the netting attachment brackets.

(3) On the rear panel, remove the six bolts securing the panel to the netting attachment bracket.

(4) Support the panel and remove the bolts and dimpled washers securing the panel to the roof support structure; remove the panel.

C. Install

(1) Ensure that the AFT BAGGAGE LTS SUP circuit breaker L 764 on panel 25-216 map ref C5 is tripped and secured by a safety clip.

(2) Ensure that the exposed insulation blankets and services are undamaged. Also ensure that the panel is undamaged, the rubbing strips and seals are intact and that all associated anchor nuts are serviceable.

R **ON A/C 007-007,

(3) Support the panel in position, locate the dimpled washers and fit the bolts to secure the panel to the roof structure. Do not tighten the bolts at this stage.

(4) On the forward panel, secure it to the air conditioning non-return valve with the four bolts.

R **ON A/C 001-006,

(3) Support the panel in position, locate the dimpled washers and fit the bolts to secure the panel to the roof support structure and to the netting attachment bracket with the six bolts. Do not tighten the bolts at this stage.

(4) On the forward panel secure it to the air conditioning non-return valve with the four bolts.

(5) Progressively hand tighten all securing bolts.

(6) Install each of the roof lights (Ref. 33-31-00,

Removal/Installation).

(7) Remove the lead lamp, vacate the compartment and close the door 844.

R **ON A/C 001-006,

(8) Fit the transverse and longitudinal divider nets to the appropriate attachments on the roof, sidewall and floor panels, if required.

OXYGEN PACK FURNISHING PANELS - REMOVAL/INSTALLATION

WARNING: MANY MATERIALS, PARTICULARLY OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. IT IS THEREFORE NECESSARY TO KEEP THE AREA IN THE VICINITY OF OXYGEN EQUIPMENT CLEAN AND FREE FROM CONTAMINATION.

1. General

The oxygen pack furnishing panels, located on the forward roof section of the upper baggage compartment, comprise a furnishing panel assembly and two upper side wall panels. The panels protect the oxygen equipment. Seal strips on the panels prevent oxygen leakage entering the baggage compartment.

**ON A/C 001-005,

2. Furnishing Panels (Ref. Fig. 401)

R **ON A/C 006-007,
2. Furnishing Panels (Ref. Fig. 402)
Panels, Furnishing

A. Prepare

(1) Open and lock door 844 in the open position.

(2) Turn the compartment light switch to "ON".

B. Remove

(1) Observe the oxygen safety precautions given in 35-00-00, Servicing.

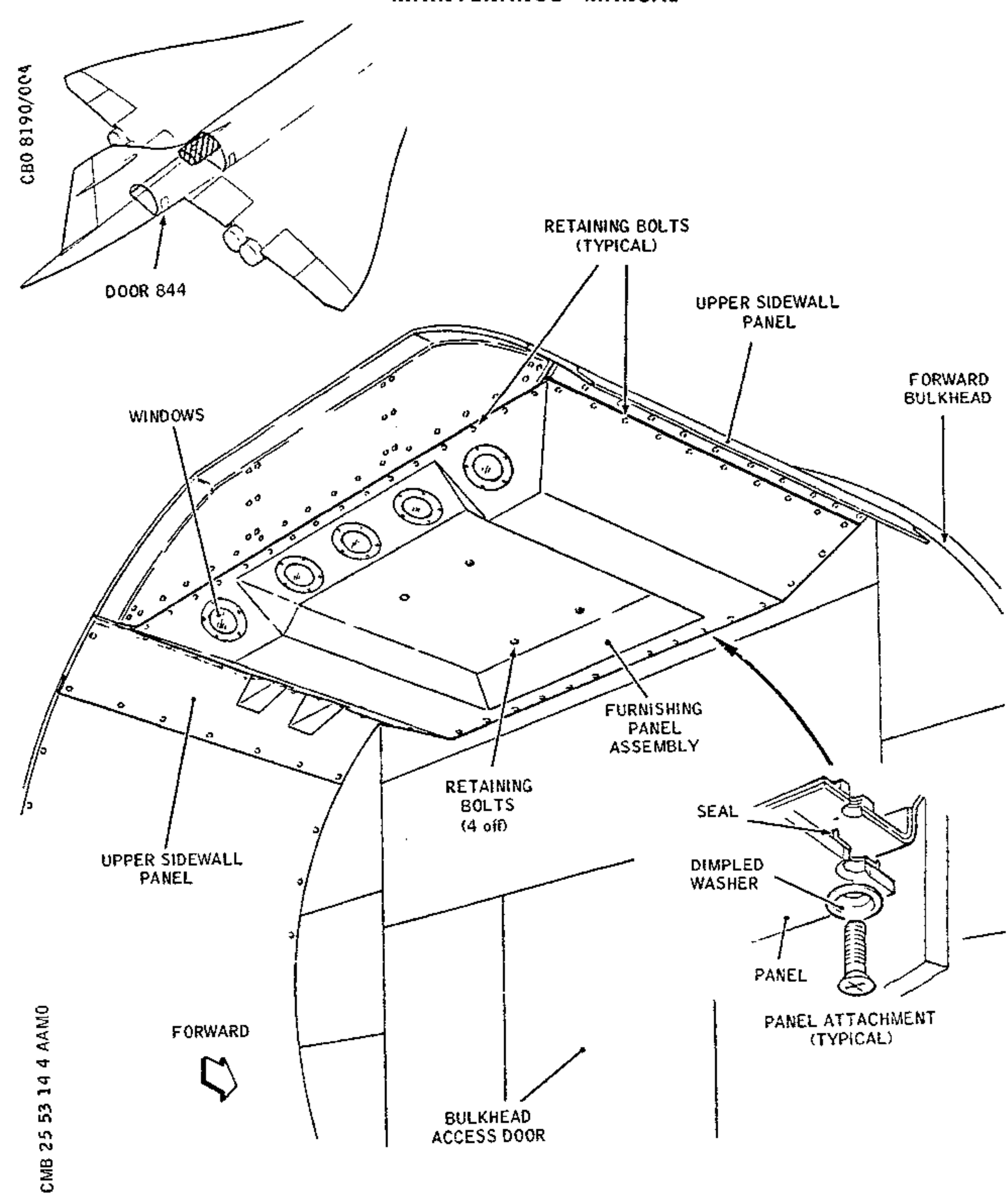
(2) Remove the four bolts and washers securing the bottom of the furnishing panel assembly.

(3) Support the furnishing panel assembly and remove the bolts and dimpled washers securing the periphery of the panel to the structure; carefully remove the assembly.

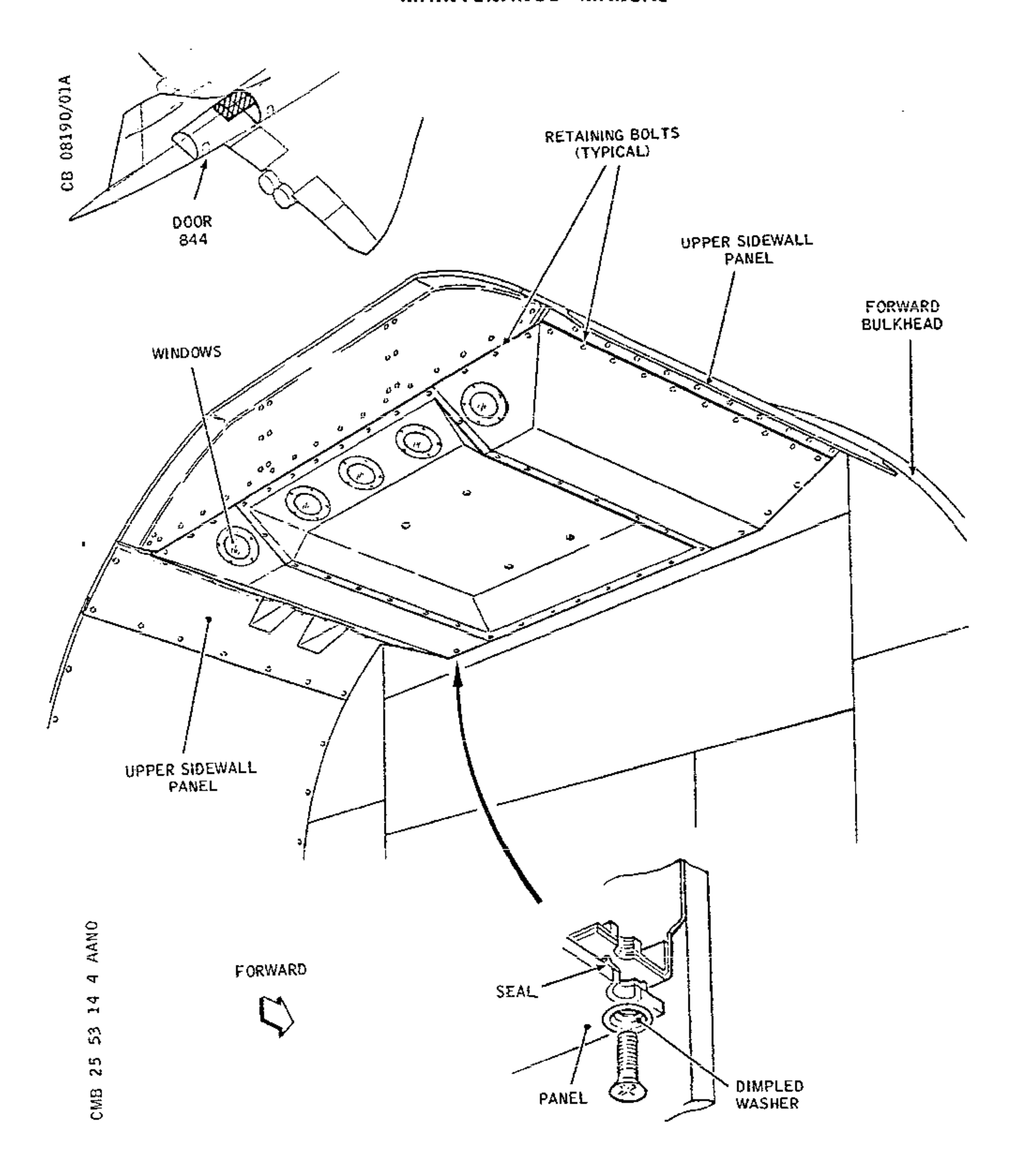
NOTE: Do not damage the seal strips during removal.

(4) Remove the bolts and dimpled washers securing the upper side wall panels; remove the panels.

C. Install



Oxygen Pack Furnishing Panels
Figure 401



Oxygen Pack Furnishing Panels
Figure 402

(1) Ensure that the oxygen precautions are still complied with.

(2) Ensure that all exposed insulation blankets and services are undamaged.

(3) Ensure that the furnishing panels, sealing strips and windows are clean and undamaged, and that the associated anchor nuts are serviceable.

(4) Position the furnishing panel assembly, and secure the periphery of the panel with the bolts and dimpled washers. Do not tighten the bolts at this stage.

(5) Fit the four bolts and washers securing the bottom of the furnishing panel assembly.

(6) Position the upper sidewall panels and secure them with the bolts and dimpled washers.

(7) Progressively hand tighten all retaining bolts.

(8) Switch 'off' the compartment light, vacate the compartment and close door 844.

CANOPY (OXYGEN BOTTLES) - REMOVAL/INSTALLATION

WARNING: MANY MATERIALS, PARTICULARLY OIL AND GREASE, ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN THEREFORE, TO AVOID THE RISK OF FIRE OR EXPLOSION, IT IS ESSENTIAL TO KEEP THE OXYGEN EQUIPMENT, AND THE AREA IN THE VICINITY OF THE EQUIPMENT, CLEAN AND FREE FROM CONTAMINATION.

OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The glass fibre canopy, located in the rear baggage compartment roof, prevents oxygen from entering the space between the fuselage structure and the furnishing trim. It is secured in position by bolts to mountings and adjoining furnishing panels, and connected to air conditioning vents in the roof and forward end of the canopy. An oxygen temperature sensor is also connected to the roof of the canopy.

2. Canopy (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Cleaning solvent BACM 302 (Ref.20-30-00, No.473)	-

B. Prepare

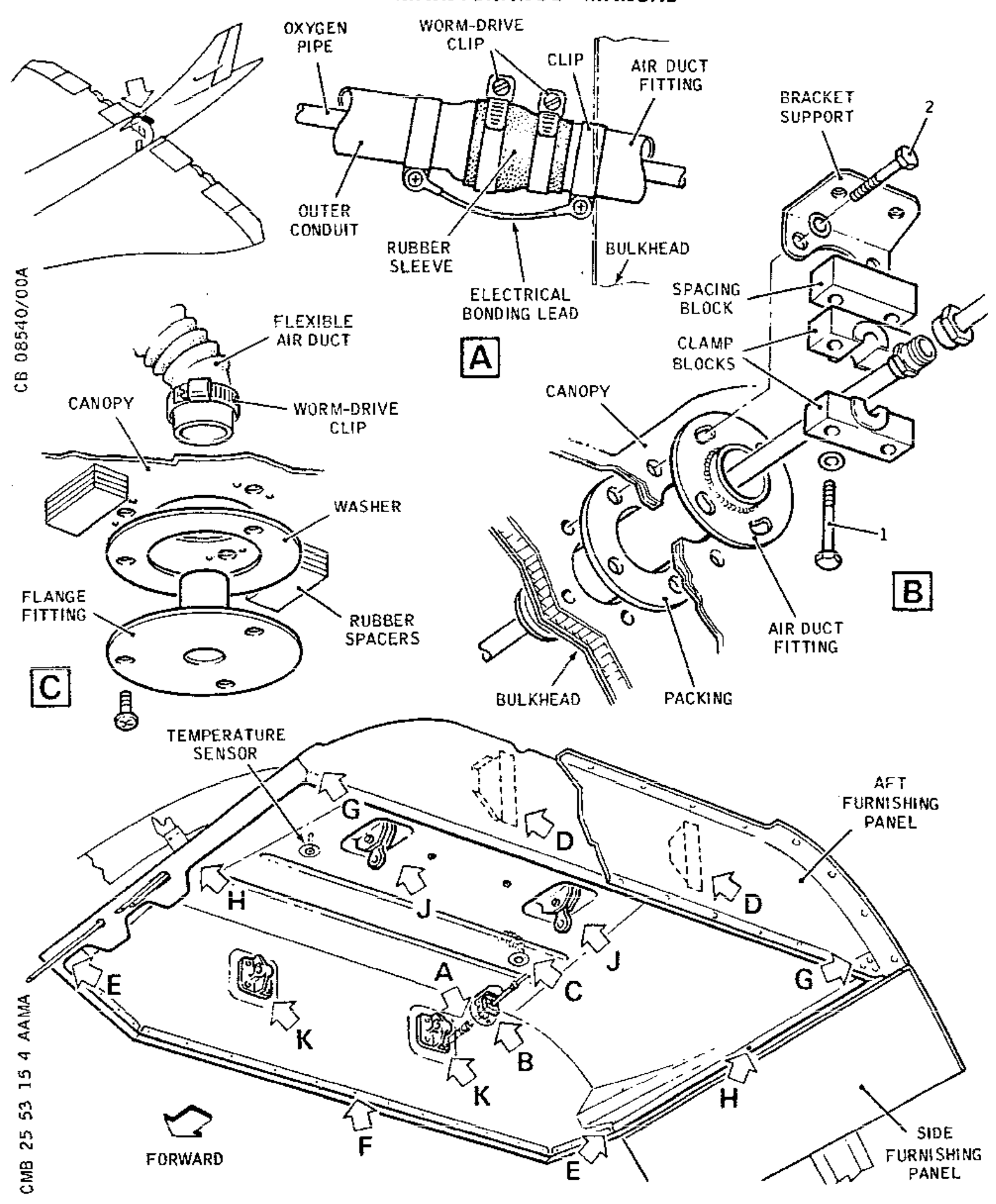
(1) Remove the oxygen crate assembly (Ref.35-11-23, Removal/Installation).

(2) Enter the rear vestibule and remove the furnishing panel between the vestibule roof and the top of No.7 galley to gain access to the air conditioning ducting.

C. Remove

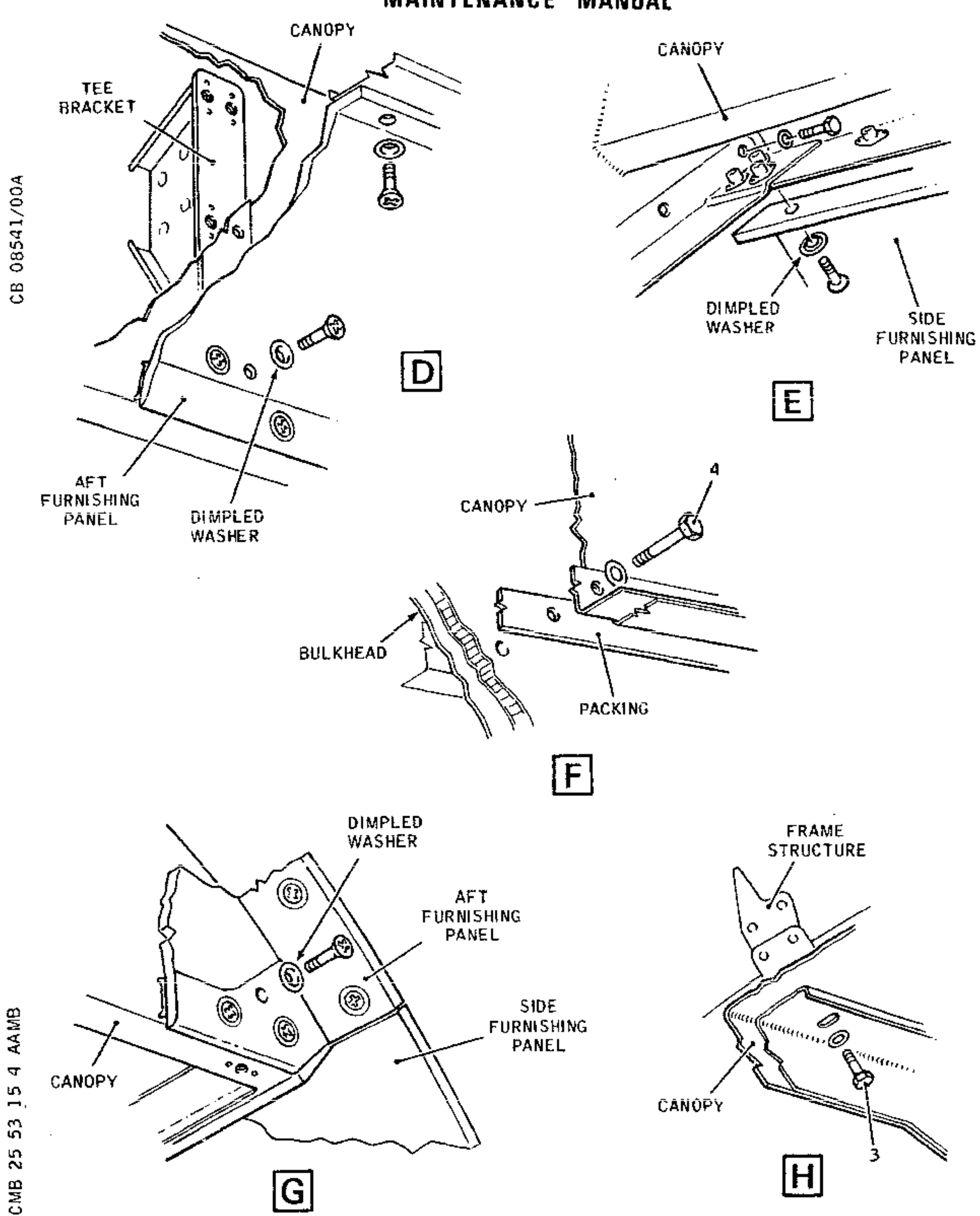
(1) Disconnect the air conditioning flexible duct from the flange fitting (Ref.Detail C):

(a) Remove the bolts and washers securing the flange



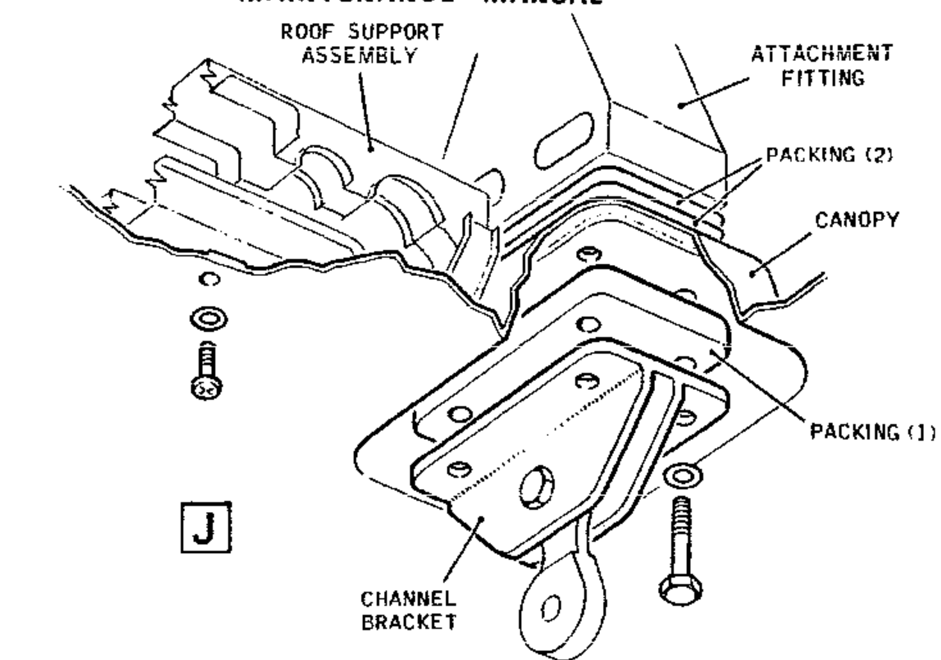
Oxygen Bottle Canopy - Installation
(Sheet 1 of 3)
Figure 401

R

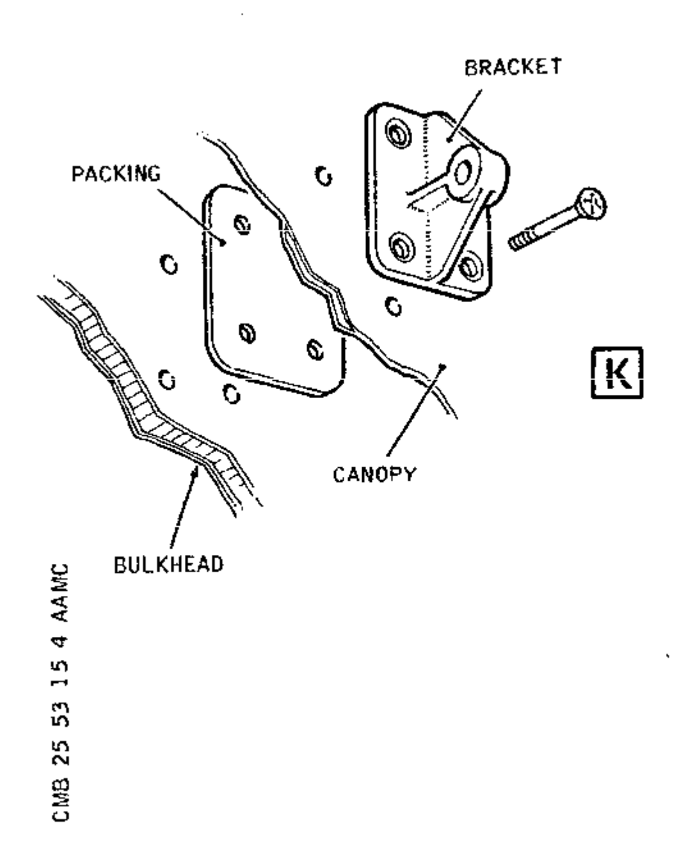


Oxygen Bottle Canopy - Installation
(Sheet 2 of 3)
Figure 401

R



CB 08581/00A



ITEM No.	LENGTH 'L' in	mm
1	1.625	41.27
2	0.70	17.78
3	0.125	3.17
4	0.8125	20.63

'L'

CMB 25 53 15 4 AAMC

Oxygen Bottle Canopy - Installation
(Sheet 3 of 3)
Figure 401

fitting to the canopy.

(b) Withdraw the flange fitting and washer from the canopy so that the worm-drive clip securing the flexible duct is accessible.

(c) Release the worm-drive clip, then disengage the flange fitting from the duct.

(2) Remove the oxygen temperature sensor from the canopy and disconnect the electrical plug from the sensor (Ref.35-11-19, Removal/Installation).

(3) Remove the air conditioning air duct fitting from the front end of the canopy:

(a) Gaining access to the duct from the rear vestibule, release the rearmost clip and disengage the electrical bonding lead from the clip.

(b) Release the two worm-drive clips securing the rubber sleeve; slide the three clips forward and disengage the sleeve from the conduit.

(c) Enter the rear baggage hold and remove the bolts (1) and washers securing the clamp block and spacing block to the bracket support; remove the spacing block and the two halves of the clamp block.

(d) Remove the bolts (2) and washers securing the bracket support and the duct fitting to the bulkhead; remove the support and fitting complete with the rubber sleeve and packing.

(e) Fit a suitable blank cover on the open end of the conduit.

(4) Remove the countersunk-head bolts and washers securing the left and the right-hand side panels to the canopy and the adjoining furnishing trim; remove the panels.

(5) Remove the aft panel (Ref.Details D and G):

(a) Remove the six countersunk-head bolts and washers securing each of the T-brackets; remove the brackets.

(b) Remove the thirty one countersunk-head bolts and washers securing the aft panel to the frame and

canopy; remove the panel.

(6) On each side of the canopy, remove the bolt (3) securing the canopy to the structural frame (Ref. Detail H).

(7) Remove the twenty bolts (4) and washers securing the canopy to the forward bulkhead. Remove the packing (Ref. Detail F).

(8) Remove the two pan-head bolts and washers located between the two channel brackets (Ref. Detail J).

(9) Remove the countersunk-head bolts and washers securing each bracket to the bulkhead (Ref. Detail K).

(10) Support the canopy and remove the hexagon-head bolts and washers securing the channel brackets; remove each bracket and the packing (1). Manoeuvre the canopy clear of the projecting oxygen pipe and remove it complete with the packing (2).

(11) Fit a blank cover to the exposed end of the air conditioning flexible duct.

D. Prepare to Install

(1) Thoroughly clean the canopy and all parts with solvent.

(2) Check that the rubber seals on the canopy are serviceable.

E. Install

NOTE: Do not finally tighten attachment bolts until completion of installation.

(1) Secure the canopy in position:

(a) Remove the blank cover from the flexible air duct.

(b) Position the packing (2).

(c) Raise the canopy so that the sensor electrical plug passes through the aperture, then manoeuvre the canopy to clear the oxygen pipe.

(d) Align the channel bracket bolt holes in the

canopy with those in the attachment fittings, and position the packings (1) and channel brackets; secure each bracket with washers and bolts (Ref. Detail J).

(e) Fit the two washers and pan-head bolts between the channel brackets (Ref. Detail J).

(f) Insert the packing between the bulkhead and the canopy and position each of the brackets; secure them with washers and countersunk-head bolts (Ref. Detail K).

(2) At the front of the canopy, insert the packing and secure the canopy with twenty washers and bolts (4).

(3) On each side secure the canopy to the structural frame with a washer and bolt (3) (Ref. Detail H).

(4) Install the two T-brackets (Ref. Detail D).

(a) Position the aft panel and secure it to the structural frame and to the canopy with thirty one dimpled washers and pan-head bolts.

(b) Locate each T-bracket on the canopy and secure it with dimpled washers and countersunk-head bolts.

(5) Install the left and the right-hand side panels; secure them with dimpled washers and countersunk bolts.

(6) Install the air conditioning duct fitting (Ref. Details A and B).

(a) Position the packing between the bulkhead and the canopy.

(b) Insert the air duct fitting, complete with a serviceable rubber sleeve, through the canopy and bulkhead so that the duct is concentric with the oxygen pipe.

(c) Position the bracket support and secure it and the duct fitting with the washers and bolts (2).

(d) Slide the rubber sleeve forward to engage the conduit and move the three clips into position; secure the sleeve with the two foremost clips.

(e) Engage the electrical bonding lead with the rearmost clip; secure the clip.

(7) Fit the oxygen pipe clamp block (Ref. Detail B):

(a) Locate the two halves of the clamp block on the oxygen pipe, position the spacing block and secure them to the bracket support with washers and bolts (1).

(8) Connect the electrical plug to the oxygen temperature sensor, and the sensor to the canopy (Ref. 35-11-19, Removal/Installation).

(9) Withdraw the flexible duct through the aperture in the canopy and connect the flange fitting; secure it with a worm-drive clip. Push the fitting into the aperture and secure it to the canopy with washers and hexagon-head bolts (Ref. Detail C).

(10) Ensure that the two rubber spacers on the canopy are secure; if necessary, bond new spacers in the canopy with self curing silicone adhesive in accordance with 20-25-12 (Ref. Detail C).

(11) Tighten all bolts. Torque load those bolts securing the following items:

ITEM	TORQUE LOAD lbf in	TORQUE LOAD mdaN
Channel brackets	60 to 70	0.68 to 0.79
Bulkhead brackets	30 to 40	0.34 to 0.45
T-brackets	30 to 40	0.34 to 0.45

F. Conclusion

(1) Check the oxygen temperature sensor by carrying out a functional test on the oxygen temperature indicator (Ref.35-11-21, Adjustment/Test).

(2) Check the air conditioning pipes for obstruction as follows:

(a) Connect and switch on a ground air supply (Ref.12-14-21).

(b) Ensure that an air flow exists at the flange fitting and at the air duct fitting.

(c) Switch off and disconnect the ground air supply.

(3) Enter the rear vestibule and refit the furnishing panel between the vestibule roof and the top of No.7 galley.

FORWARD BULKHEAD FURNISHING PANELS AND INTERIOR DOOR - REMOVAL/INSTALLATION

WARNING: MANY MATERIALS, PARTICULARLY OIL AND GREASE ARE LIABLE TO IGNITE SPONTANEOUSLY WHEN EXPOSED TO UNDILUTED OXYGEN. IT IS THEREFORE NECESSARY TO KEEP THE AREA IN THE VICINITY OF OXYGEN EQUIPMENT CLEAN AND FREE FROM CONTAMINATION.

1. General

Four furnishing panels and an interior access door are secured to the bulkhead structure by bolts and quick-release latches respectively. The panels and the door are of honeycomb construction and incorporate sealing strips which contribute to provide a sealed baggage compartment. Each panel can be removed independently from the upper baggage compartment, but the access door must be removed from inside the passenger cabin.

2. Furnishing Panels (Ref. Fig. 401)

A. Remove

(1) Open door 844 and lock it in the open position, then switch on the upper baggage compartment light.

(2) If the uppermost panel is to be removed, remove the oxygen bottle support rack (Ref.35-11-23 Removal/ Installation) and the support rack canopy (Ref. 25-53-15, Removal/Installation).

(3) Remove the bolts securing the panel; remove the panel.

B. Install

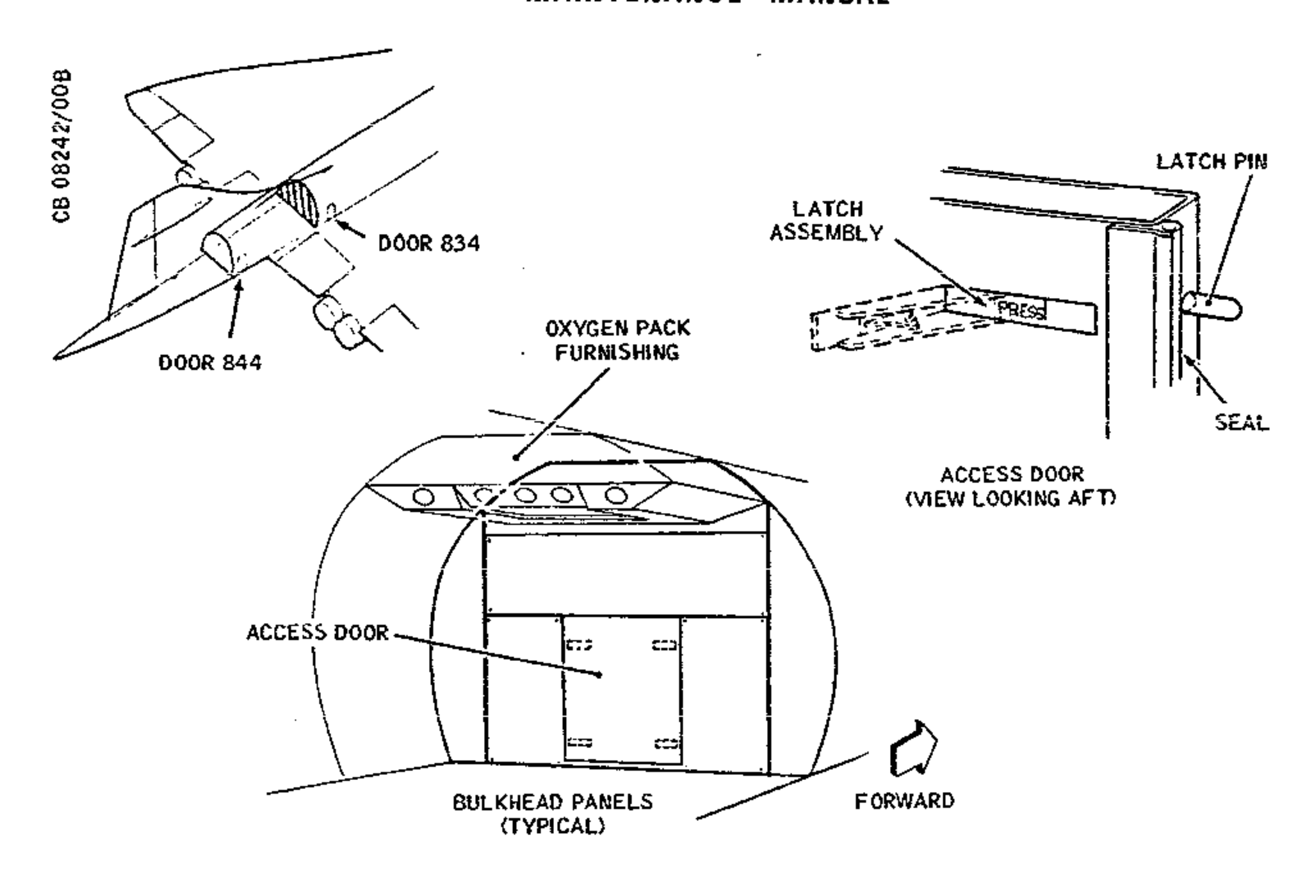
(1) Ensure that all exposed services and parts are clean and undamaged, particularly the sealing strips. on the panels and the associated anchor nuts on the bulkhead structure.

(2) Position the panel and secure it with the bolts. Progressively hand-tighten the bolts.

(3) Following the assembly of the uppermost panel, refit the canopy (Ref.25-53-15, Removal/Installation) and the oxygen bottle support rack (Ref.35-11-23, Removal/ Installation).

(4) Switch 'off' the compartment light, vacate the compartment and close door 844.

3. Interior Access Door

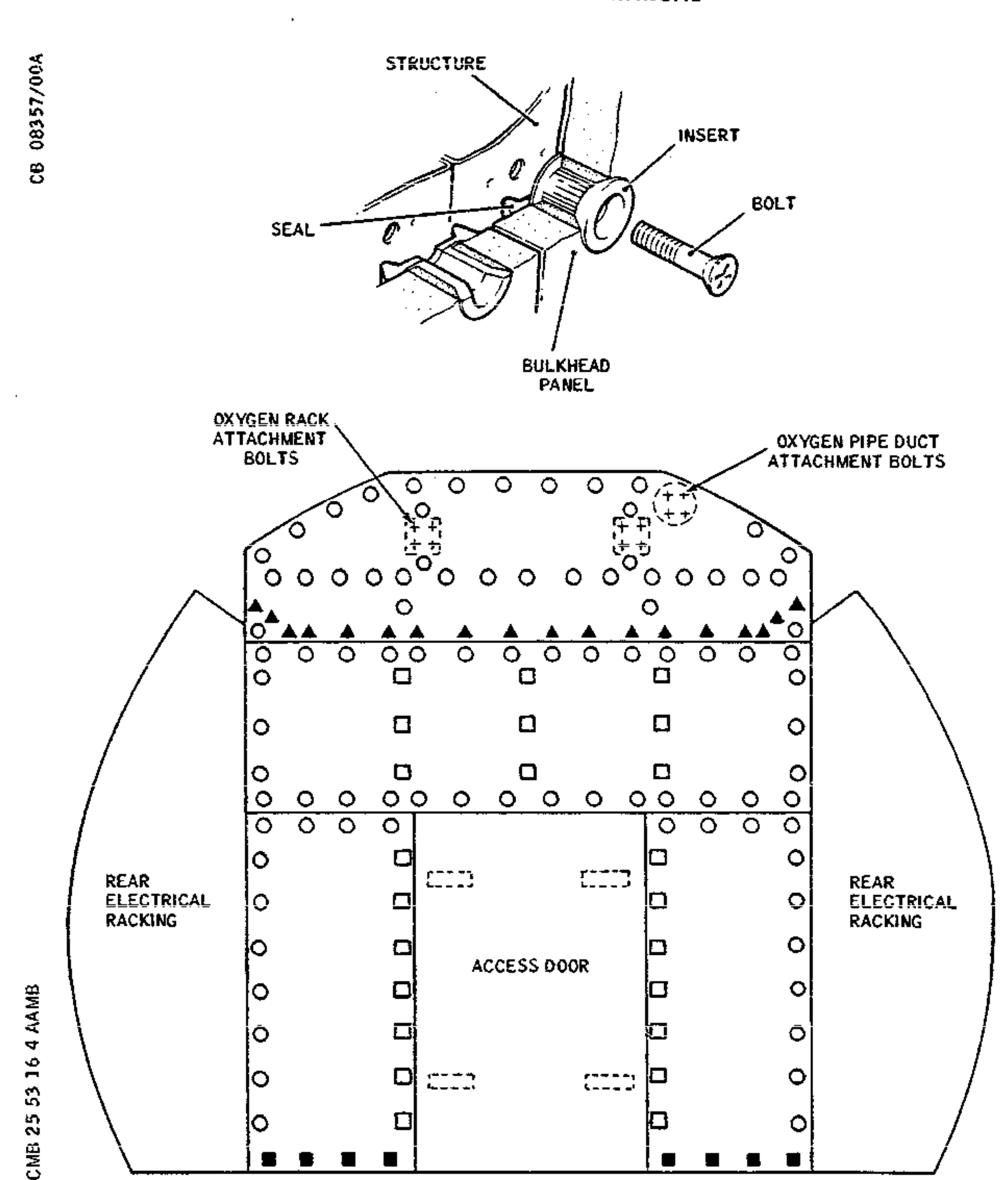


BOLT SYMBOL	BOLT TYPE	LENGTH L	
		in	mm
□	L	1.025	26.1
○		0.888	22.5
■		0.964	24.5
▲	L	0.964	24.5

CMB 25 53 16 4 AAMA

Forward Bulkhead Furnishing Panels
and Interior Door (Sheet 1 of 2)
Figure 401

R



Forward Bulkhead Furnishing Panels
and Interior Door (Sheet 2 of 2)
Figure 401

R

A. Remove

(1) Open door 834.

(2) Withdraw the two central meal tray trolleys
R beneath the worktop of No. 7 galley.

(3) Press the latch plate on each of the quick-release latches to disengage the latch pins from their housings; remove the door.

B. Install

(1) Ensure that all parts are clean and undamaged, particularly the sealing strips, latch pins and the latch pin housings.

(2) Check that the painted and self-adhesive placards on the forward face of the door are legible.

NOTE: The painted placard indicates the TOP HAUT of the door and the other placard indicates that the door must not be removed in flight (Ref. 11-34-00).

(3) Position the access door in its aperture, from the passenger compartment, and engage each of the quick-release latches. Check that each latch plate is flush with the door surface, indicating that the latch is fully engaged.

R (4) Install the two central meal tray trolleys beneath
R No. 7 galley worktop.

R

BAGGAGE DOOR NET ATTACHMENT STRUTS AND BRACKETS - REMOVAL/INSTALLATION

1. General

The four baggage door net attachment struts and brackets are located on frames 79 and 78A, on the right-hand side of the aircraft, in the upper baggage compartment. The struts are pivoted inboard to support the baggage door net and lie flat against the furnishing panel when not in use.

The strut on diaphragm 3 furnishes the anchor point for the doorway barrier strap and also has provision for stowing the door carriage stop safety pin.

R

The attachment bracket for this strut also provides an attachment point for the diplomatic locker.

R

Although no two strut and bracket assemblies are alike, the removal procedure for each is the same. Repairs to the strut and bracket assemblies are effected by renewing the damaged part.

2. Strut and Bracket Assemblies

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque spanner, range 0-160 lbf in (0-1.81 mdaN)	-
Jointing compound PR1710 (Ref. 20-30-00, No.355)	-
Cleaning solvent MEK (Ref. 20-30-00, No.470)	
Scotchbrite pads - grade S (fine) (Ref. 20-30-00, No.458)	-
Clean, lint-free cloths	-

B. Remove

(1) Remove the strut assembly:

(a) Remove the split pin from the shear pin.

(b) Extract the shear pin from the mounting bracket, noting the position, type and quantity of the washers removed.

(c) Remove the strut assembly.

(2) Remove the mounting bracket assembly:

R

NOTE: Before removing the mounting bracket assembly from diaphragm 3, remove the diplomatic locker attachment bolt from the bracket (Ref. 25-53-19, Removal/Installation).

R

(a) Remove the two torq-set bolts securing the pressure pad to the mounting bracket. Remove the pad.

(b) Remove the bolts and washers securing the mounting bracket and packing to the diaphragm. Remove the bracket and the packing.

R

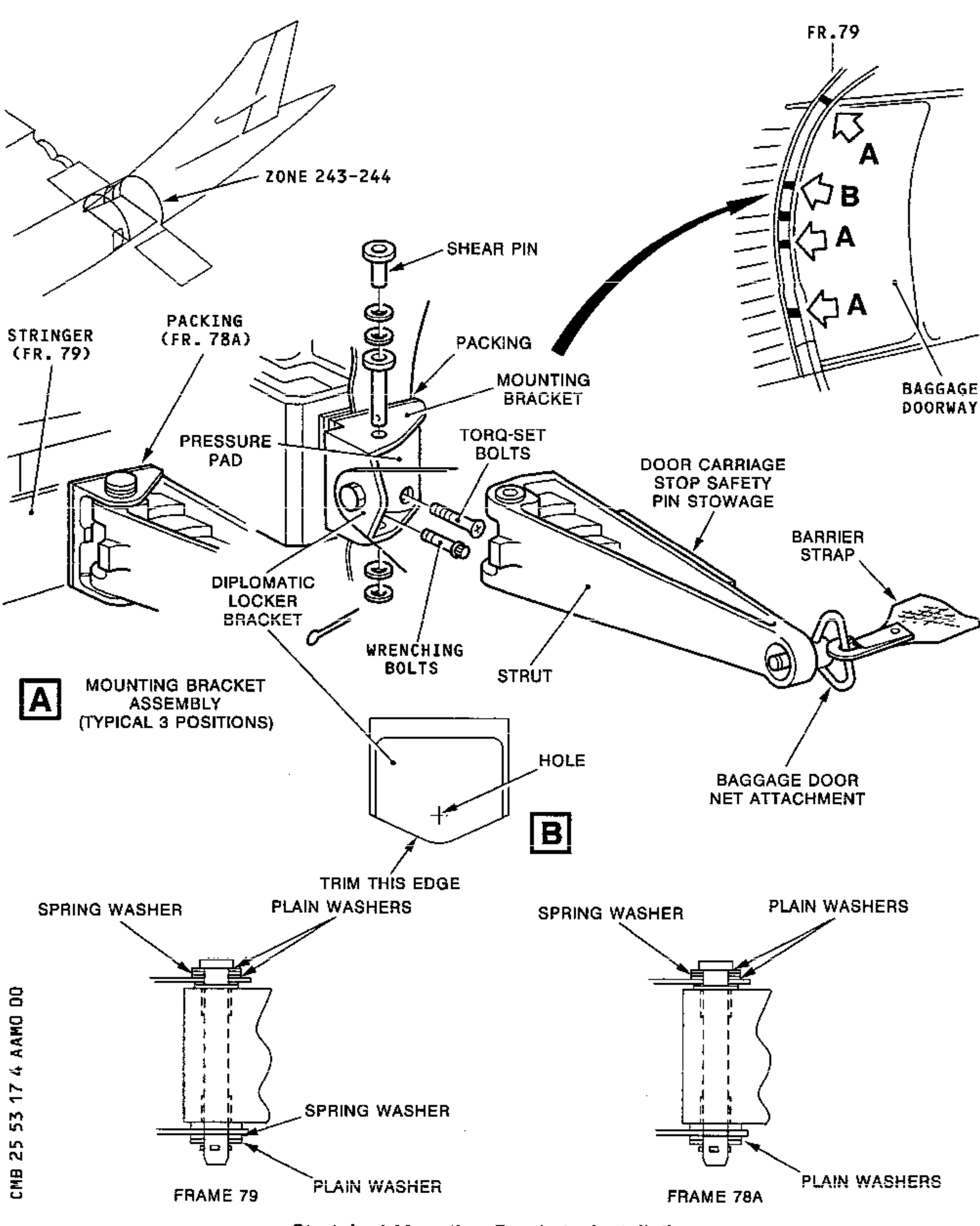
C. Install (Ref. Fig. 401)

(1) Remove all traces of old jointing compound from the surfaces to be joined with a clean lint-free cloth moistened with cleaning solvent. Wipe dry whilst still wet with a clean, dry, lint-free cloth.

(2) If installing a new mounting bracket at diaphragm 3 it will be necessary to drill a hole in the bracket to accept the diplomatic locker attachment bolt and to trim the edge of the bracket:

(a) Temporarily install the packing and the mounting bracket to the diaphragm with service bolts.

(b) Mark the position of the hole on the new bracket to coincide with the hole in the bracket fitted to the diplomatic locker.



Strut And Mounting Bracket - Installation
Figure 401

(c) Remove the bracket and the packing from the diaphragm.

(d) Mark the position of the edge of the bracket (Ref. Detail B).

(e) Drill a 0.45 in (11.43 mm) diameter hole at the position previously marked on the bracket and trim the edge of the bracket.

(f) Anodise the bracket.

(g) Apply eau-de-nil primer (Ref. 20-24-19) to the edge of the bracket.

(h) Apply white top-coat finish (Ref. 20-24-36) to the edge of the bracket.

NOTE: Omit paint from the holes in the bracket.

(3) Wet assemble the packing and the mounting bracket to the diaphragm and secure them with the two 12 point head wrenching bolts and washers (Ref. 20-22-12).

(4) Wet assemble the pressure pad to the mounting bracket and secure it with the two torq-set bolts (Ref. 20-22-12).

(5) Torque-load the bolts to between:

(a)	The 12 point head wrenching bolts between stringers 8 and 9 on frame 79.	140 and 160 lbf in (1.58 and 1.81 mdaN)
(b)	The 12 point head wrenching bolts on diaphragms 3, 5 and 7 on frame 78A.	70 and 80 lbf in (0.79 and 0.9 mdaN)
(c)	All torq-set bolts.	40 and 45 lbf in (0.45 and 0.51 mdaN)

(6) Install the diplomatic locker attachment bolt (Ref. 25-53-19, Removal/Installation).

(7) Assemble the strut assembly to the mounting bracket.

R

(a) Align the strut and the mounting bracket and insert the shear pin, refitting the washers in the positions and quantities previously noted.

NOTE: If a new strut or mounting bracket is fitted, it may be necessary to adjust the quantity of plain washers, at any or all positions, to enable the strut to lie flat against the furnishing panel.

(b) Fit a split pin to the shear pin.

R

DIPLOMATIC MAIL LOCKER - REMOVAL/INSTALLATION

1. General

The diplomatic mail locker, located immediately forward of the upper baggage compartment door aperture, is secured to the floor and to brackets which protrude from the sidewall furnishing panels.

2. Diplomatic Mail Locker (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque spanner, range 0-45 lbf in (0-0.50 mdaN)	-

B. Prepare to Remove

(1) Open the baggage compartment door.

C. Remove Diplomatic Mail Locker

(1) Remove the three counter-sunk head bolts securing the inboard side of the locker to the floor.

(2) Open the locker door, and remove the three pan-head screws and washers securing the outboard side of the locker to the floor.

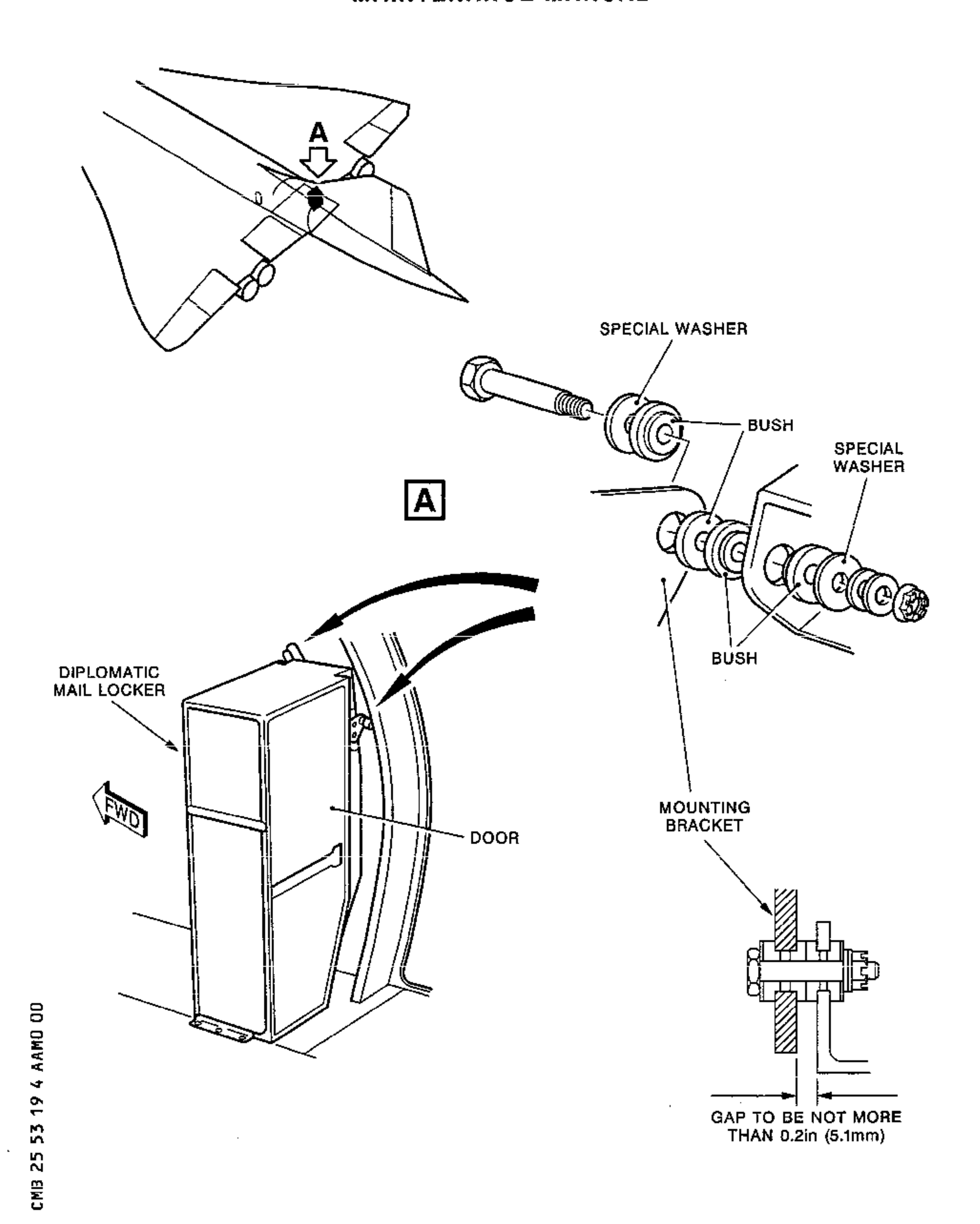
(3) At each of the two mounting brackets, remove the split pin, slotted nut, washers and shouldered bolts. Remove the locker and retain the bushes.

D. Install Diplomatic Mail Locker

(1) Check the rubber bushes for serviceability.

(2) Check the mounting brackets on the locker for security.

(3) Fit the bushes on each side of the mounting brackets and in the structure, and position the locker. Temporarily fit the three countersunk-head bolts



Diplomatic Mail Locker
Figure 401

securing the inboard side of the locker to the floor. Open the locker door, and similarly fit the three pan-head screws and washers securing the outboard side to the floor. Do not tighten the bolts at this stage.

(4) Secure each of the mounting brackets to the structure with the shouldered bolt, special washers, washers and slotted nut. Check that the gap between each pair of brackets does not exceed 0.2 in (5.1 mm). If necessary fit additional special washers under the nut. Secure the nut with a split pin.

(5) Torque load each of the countersunk head screws and the pan-head screws to between 40 and 45 lbf in (0.45 and 0.50 mdaN).

(6) Close the locker door.

EMERGENCY - GENERAL

1. General

Emergency equipment installed in various parts of the aircraft permits evacuation of the passengers and crew under all emergency conditions likely to be encountered by the aircraft and provides for their survival after evacuation. All passenger and service doors are fitted with escape slides or slide/rafts which can be used during an evacuation. Each slide can operate automatically when the door to which it is attached, is operated, or the slides can be operated manually should the automatic inflation system fail. In the event of ditching the slide/rafts can be separated from the aircraft to become rafts.

Equipment also includes, an emergency evacuation alert system which provides audible and flasher indicator warnings for the flight crew and cabin crew in the event of an impending evacuation of the aircraft (Ref. 25-67-00).

2. Equipment Carried

Lighting failure and smoke
Torches
- Smoke goggles
- Portable oxygen equipment (Ref. 35-31-00)
- B Smoke Hood

Fire
- Fire extinguishers (Ref. 26-23-00)
- Asbestos gloves
- Fire axes

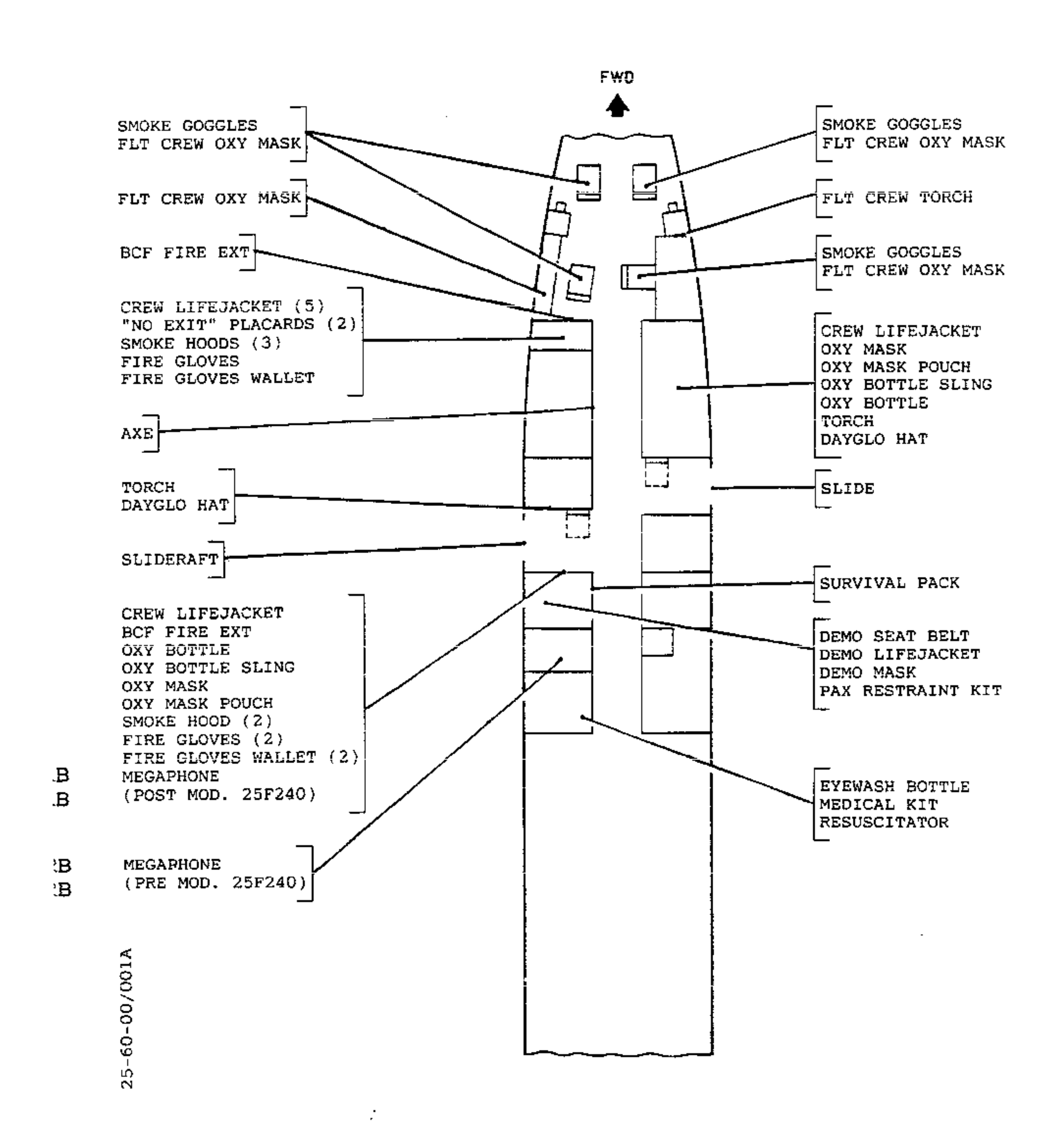
Evacuation
- Escape ropes and ditching lines
- Slides

Survival
- Life jackets
- Slide/Rafts
- Life raft
- First aid kits
- Emergency packs
- Megaphones
- Radio beacons

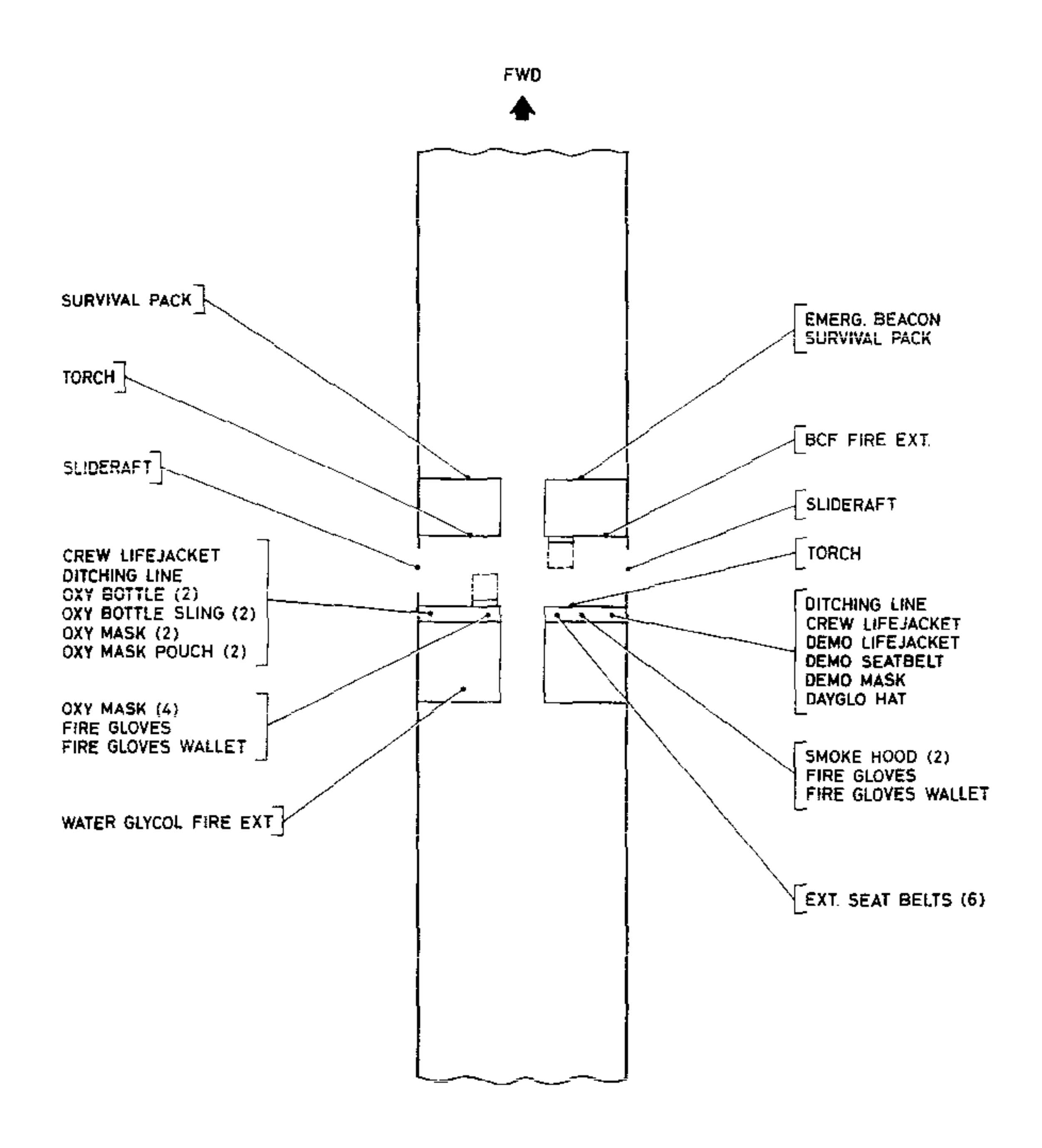
RB 3. Location of stowages

RB A. The location and quantities of the Emergency Equipment carried is shown on fig.001 (shts 1 - 3).

RB B. A lifejacket is located under each passenger seat.



EMERGENCY EQUIPMENT - FLIGHT and
PASSENGER COMPARTMENT (sheet 1 of 3)
Figure 001



EMERGENCY EQUIPMENT - CENTRE
CABIN AREA DOORS 2L AND 2R (sheet 2 of 3)
R Figure 001

EMERGENCY EQUIPMENT
REAR CABIN AREA AROUND DOORS
3L AND 3R (sheet 3 of 3)
Figure 001

R

ESCAPE EQUIPMENT - DESCRIPTION AND OPERATION

1. General

Escape equipment consists of ropes and combined slide/rafts which are installed in the aircraft to aid the crew and passengers in an emergency evacuation. Two ropes are kept in the flight compartment to enable the crew to evacuate the compartment via the direct vision windows and one in the forward vestibule. Two ropes are kept in the passenger compartment for use as ditching lines.

Slide/rafts are fitted for use at all the main exits, refer to:

25-64-00 (Forward Passenger and Service Doors)
25-65-00 (Intermediate Passenger and Service Doors)
25-66-00 (Rear Service Doors)

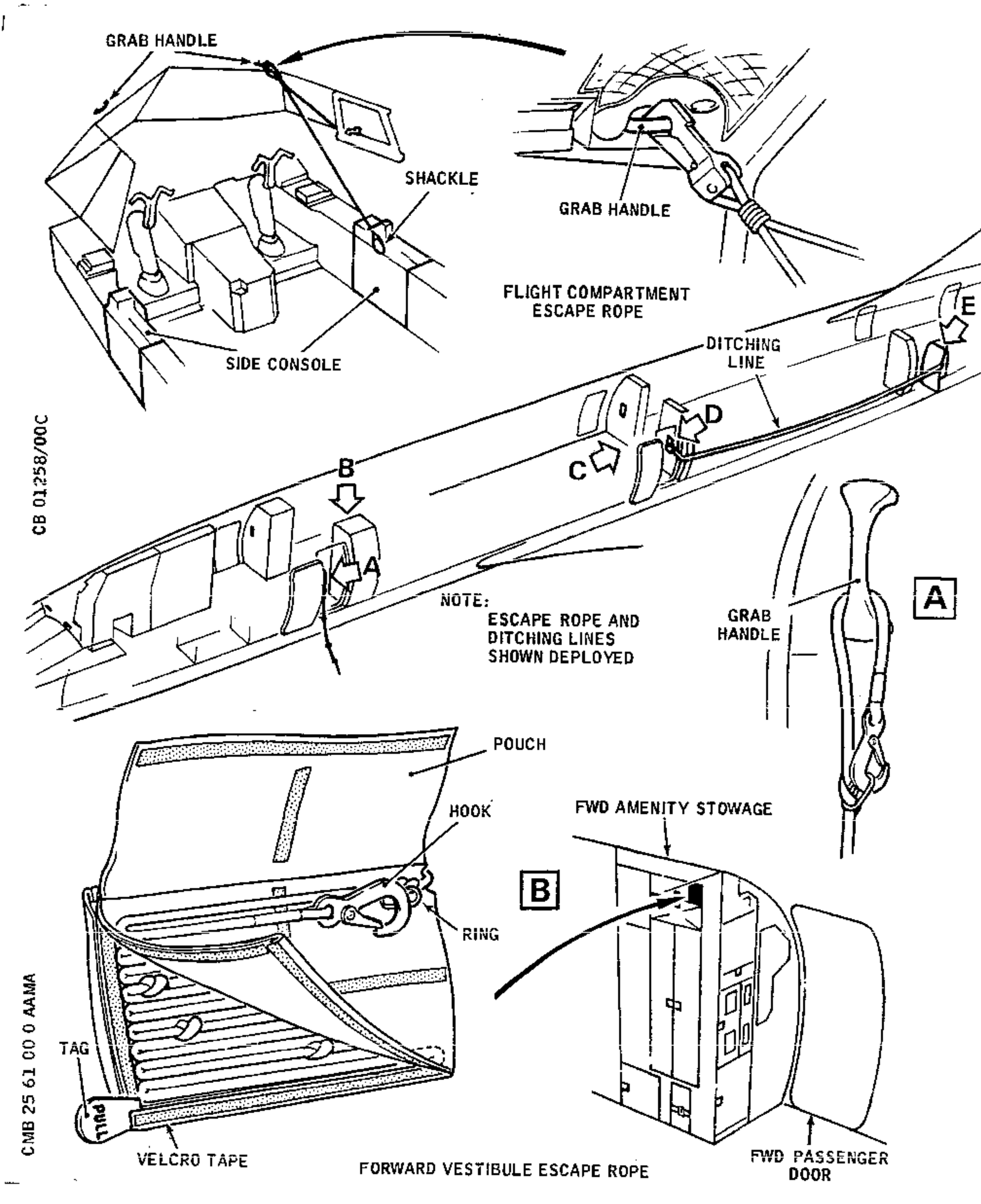
2. Flight Compartment Escape Ropes (Ref. Fig. 001)

The escape ropes in the flight compartment are kept in the side consoles. Each is made of ulstron fibre and is 0.625 in (15.87 mm) in diameter. It is approximately 33 feet (10 m) long having a forged steel hook with a self-locking clasp attached approximately 6 feet (2 m) from one end. The longer part of the rope is white and the shorter part is dyed orange. At the end of the orange rope is a shackle that is secured to a bracket within the side console with a pip-pin. Detachable manual stowages on the top of the consoles afford access to the ropes.

To use the flight compartment escape rope first open fully the direct vision window, then grasping the hook protruding from the manual stowage in the console, pull it out and clip it firmly to the grab handle located overhead. Continue pulling the white rope from its stowage and pass it through the direct vision window aperture until it is completely outside the aircraft but still hooked to the grab handle.

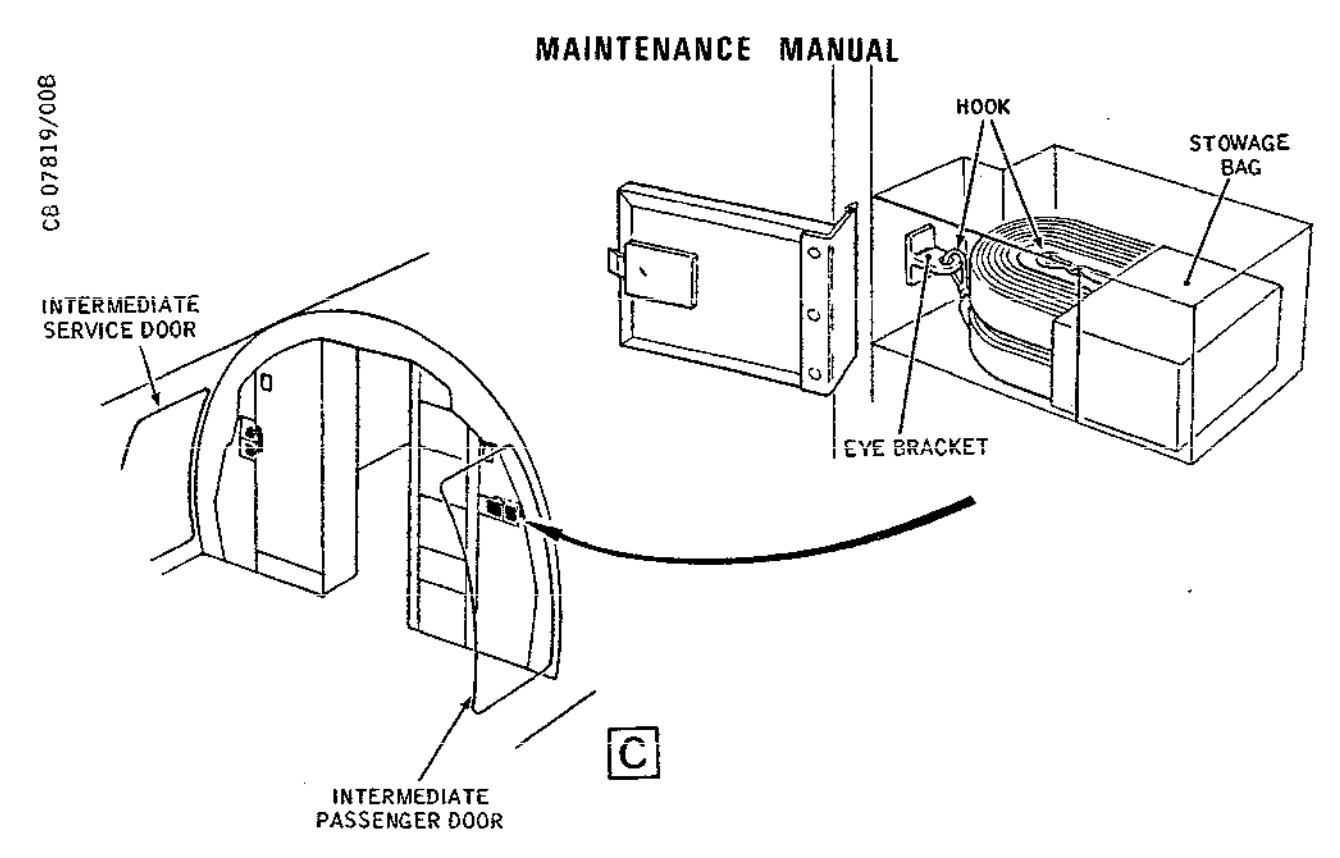
3. Forward Vestibule Escape Rope (Ref. Fig. 001)

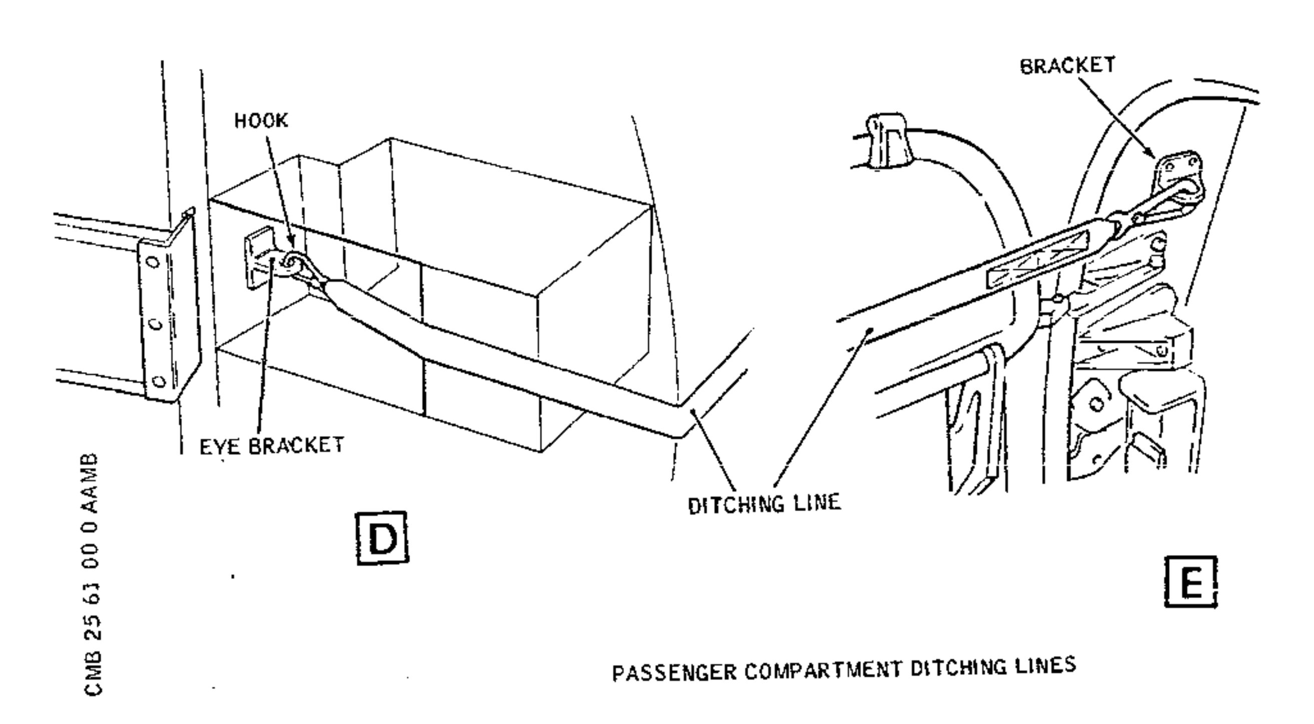
The escape rope in the forward vestibule is kept in the top cupboard of the LH amenity stowage. The rope is 0.5 in (12.7 mm) diameter nylon approximately 20.5 ft
R (6.22m) long having a forged steel hook with a spring
R clip at one end and a tab at the other. Knotted in the
R rope, 12 inches from the hook, is a steel ring; there-
R after is a knot at every 18 inches. When stowed, the
rope is looped and packed into a neoprene proofed fabric



Escape Ropes (Sheet 1 of 2)
Figure 001

B





PASSENGER COMPARTMENT DITCHING LINES

R

Escape Ropes (Sheet 2 of 2)
Figure 001

pouch that is secured to the rope by stitching. The pouch flaps are fastened by Velcro tape.

The rope can be used at either the passenger or the service door. To use the rope the top flap of the pouch is pulled back to free the hook which is then passed through the grab handle by the door and secured to the steel ring. The remainder of the rope is then pulled clear of the pouch by the tab and is deployed through the open doorway.

4. Passenger Compartment Ditching Lines (Ref. Fig. 001)

The ditching lines each consist of one inch wide nylon webbing, 65 feet (20 m) long, having at each end a forged steel hook with a spring clasp. Each line is coiled into a PVC coated stowage bag and kept in a cupboard on the bulkhead beside the intermediate passenger and service doors. One end of the line is hooked to a bracket in the bulkhead cupboard.

The ditching lines are used by first opening the intermediate passenger and service doors and the RH and LH rear service doors. Then, with one end still hooked to the bulkhead, the bag complete with line is removed from its stowage and the free end of the line taken through the adjacent doorway over the wing and around the open rear service door, where it is clipped to a bracket on the hinge side of the door frame. If the rear service door is jammed shut the line is hooked to the door outer handle. The stowage bag is discarded during deployment of the line.

5. Operation of Concorde With One Unserviceable Exit, Escape Slide or Slide/Raft

At stations other than LHR, if an exit, escape slide or slide/raft becomes unserviceable it is permissible to continue with the unserviceability to the next station at which a repair can be effected.

Under these circumstances certain rules must be followed;

(a) For routes over water if the unserviceability renders one of the slide/rafts unuseable the extra liferaft capacity can be made up by the addition of a 36 man liferaft. This unit, being a standard Concorde type in a hard container, is to be mounted on the seat rails at the rear right hand side of the cabin. Space is created by moving the rear right hand pair of seats forward after disconnection of the PSU cable. This will render these seats unuseable.

PASSENGER/CREW RESTRICTIONS

DOOR UNUSEABLE	MAX TOTAL PASSENGERS + CREW WITHOUT ADDITIONAL LIFE RAFT (OVER WATER ONLY)
Forward left hand	88
Intermediate left hand	88
Intermediate right hand	98

(b) For routes over land there will be no passenger restrictions.

(c) Unserviceable exits must be marked with a "No Exit" sign in the form of a red disc at least 23 cms in diameter with a horizontal white bar across it bearing the words "No Exit" in red letters. Suitable discs are already held at line stations for use on B.707 and VC.10 under similar circumstances (Part No. 3-BA 20947).

(d) The illuminated exit sign at the door must be masked with black tape, (measuring approximately 5 in. x 2 in.).

(e) Flight crews must be informed of the position and nature of the unserviceability so that cabin procedures can be altered as necessary.

(f) An exit can also become unserviceable if it cannot be reliably opened or kept open by the hold open latch. Exits which are only difficult to close need not be classified unserviceable. Unserviceable exits must be checked safely latched by observing that the inner operating handle has fully rotated, (check alignment marks), and that the door AND the top flap are flush with the aircraft exterior.

NOTE:- One unserviceable exit does not cause a reduction in passenger numbers.

(g) In the event that a 36 man liferaft is installed as per item (a), the local Traffic Office is to be informed in order that a load sheet adjustment is

R B made. For load sheet purposes the weight of a 36
R B man liferaft is 59 kgs.

ESCAPE ROPES - REMOVAL/INSTALLATION

1. General

R There are two escape ropes in the flight compartment, one in
R the forward vestibule and two ditching lines in the passenger
R compartment. The flight compartment escape ropes are stowed
R in the LH and RH side consoles; the escape rope in the
R forward vestibule is kept in the amenities stowage and the
R ditching lines are stowed in cupboards on the bulkheads inside
R the intermediate passenger and service door entrances.

R 2. Escape Ropes - Flight Compartment

A. Remove Flight Compartment Escape Ropes (Ref. Fig. 401)

(1) Lift the horizontal lock lever on the pilot's seat control console, then push the seat fully forward.

(2) Remove the manual stowage from the side console in which it is a push fit, and secured by 'Camloc' fasteners.

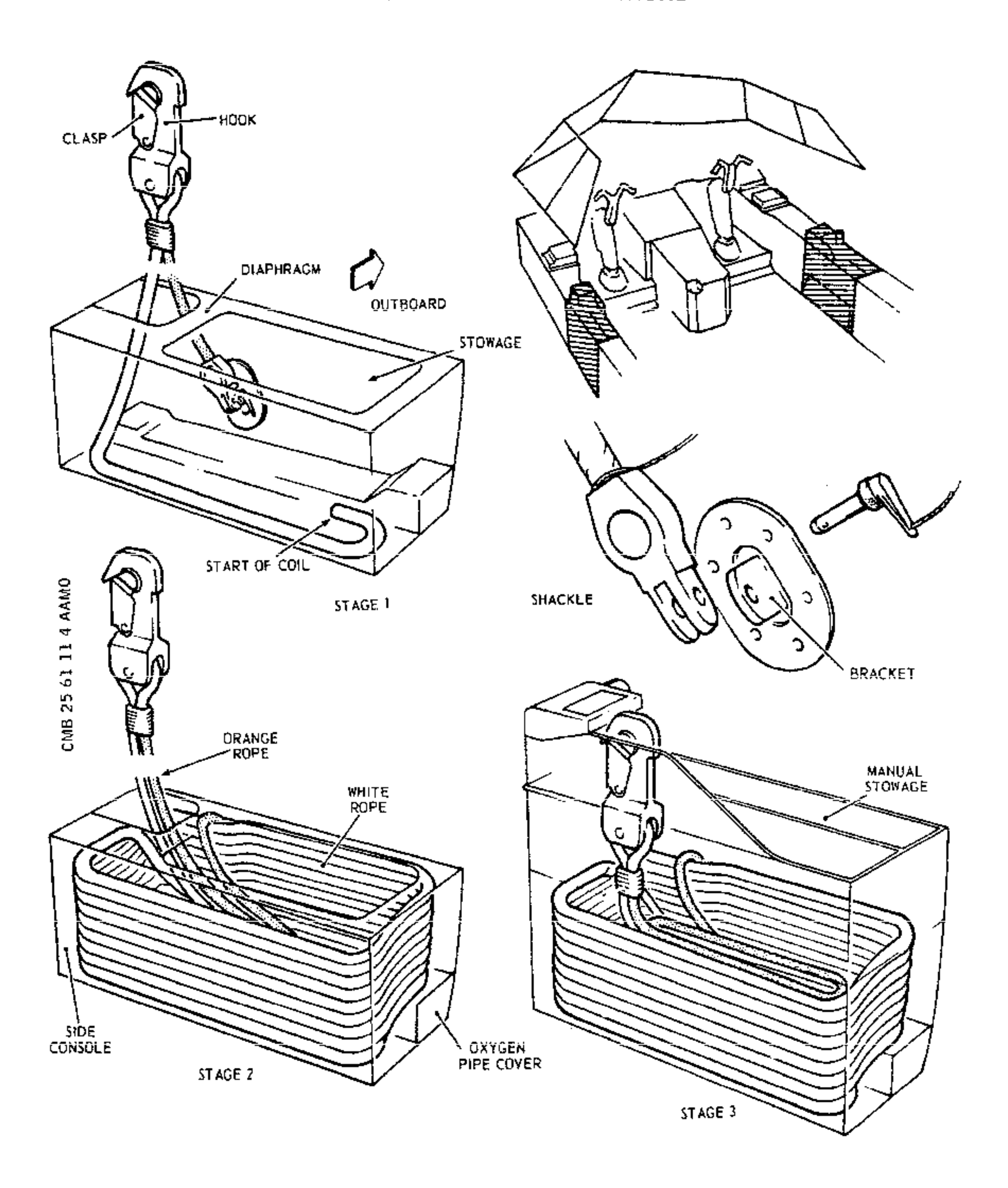
(3) Take the hook from the recess in the manual stowage, and pull out the escape ropes as far as possible. Remove the pip-pin securing the shackle to the bracket in the console, and pull out the remainder of the rope.

B. Install Flight Compartment Escape Rope (Ref. Fig. 401)

(1) Feed the shackle end of the orange rope through the forward cut-out in the horizontal diaphragm of the side console and secure the shackle to the bracket on the outboard wall of the stowage with the pip-pin.

(2) Feed the free end of the white rope through the same cut-out and coil the rope clockwise into the space between the oxygen pipe cover and the inboard wall of the stowage.

(3) Ensure that the shackle will not interfere with the coiling of the white rope by keeping it flat against the outboard wall of the stowage. Continue coiling the white rope,



Flight Compartment Escape Ropes - Installation
Figure 401

laying it over the oxygen pipe cover, until the length of white rope remaining is equal to that of the orange rope. Care should be taken to work with the lay of the rope, and push the rope tight into the corners of the stowage. Any kinks in the remaining double length of orange and white ropes may be released by temporarily detaching the shackle.

(4) Lay the doubled orange and white rope away from the shackle over the top of the white coils, and coil the remaining double rope inside the white coils already in position, until the hook is reached.

CAUTION: THE SECTION OF ORANGE ROPE ADJOINING THE SHACKLE MUST REMAIN OUTSIDE ALL WHITE ROPE COILS. DO NOT ALLOW ORANGE ROPE TO LAY UNDER OR BETWEEN WHITE COILS, BECAUSE THIS WILL TANGLE THE ROPES WHEN PULLED FROM THE STOWAGE.

(5) Install the manual stowage, which is a push fit, into the top of the side console and secure fasteners. Mount the hook on its bracket in the manual stowage.

3. Escape Ropes - Forward Vestibule (Ref. Fig. 402)

A. Remove

(1) Remove the escape rope and stowage pouch from the top cupboard of the LH amenities stowage in the forward vestibule just inside the door.

(2) Release the rope from the pouch by unfastening the pouch flaps secured with Velcro tape.

NOTE: The pouch is stitched to the rope and forms part of the rope assembly.

B. Install

(1) Pack the rope between the large flaps of the pouch using zig-zig loops and finish with the tag protruding. Fasten the edges of the flaps together with the Velcro tape. Pack the rope end with the hook beneath the short flap using a single loop, then secure the flap.

NOTE: When the rope is stowed in the pouch the hook must not be attached to the ring.

(2) Stow the rope and pouch in the top cupboard of the forward amenities stowage.

4. Ditching Lines - Passenger Compartment (Ref. Fig. 402)

A. Remove

(1) Unlock the ditching line from its eye bracket in the bulkhead cupboard and remove the stowage bag complete with line.

(2) Remove the line from the stowage bag.

B. Install

(1) Check the line for damage.

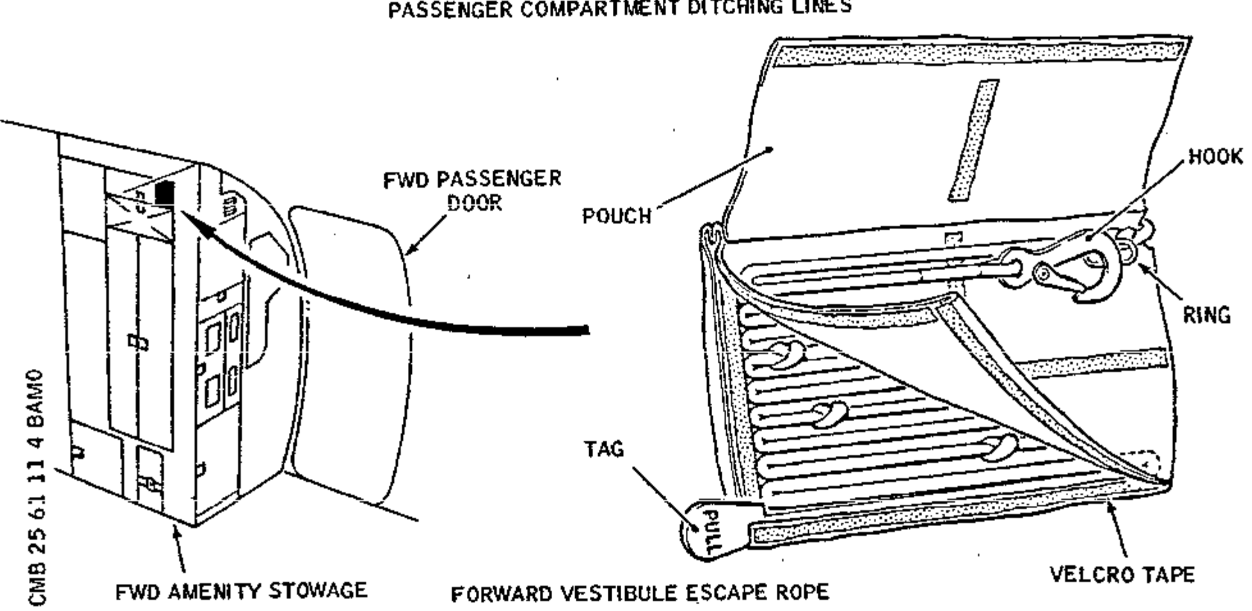
(2) Coil the line ready for insertion in the stowage bag by simultaneously winding two equal coils side by side with the hook ends at the centre of the coils.

(3) Pack the two coils side by side into the stowage bag.

(4) Place the stowage bag complete with line in
R the bulkhead cupboard. In the RH stowage, secure
R the hook of the nearest coil to the eye bracket;
R in the LH stowage secure the hook of the lower coil
R to the bracket.

INTERMEDIATE SERVICE DOOR
HOOK
WINDING DIAGRAM
CB 04410/00C
STOWAGE BAG
EYE BRACKET
STOWAGE BAG

PASSENGER COMPARTMENT DITCHING LINES



FORWARD VESTIBULE ESCAPE ROPE

Passenger Compartment Ditching Lines and
Forward Vestibule Escape Rope Installation
R Figure 402

ESCAPE ROPES - INSPECTION/CHECK

1. General

There are two escape ropes in the flight compartment, one in the forward vestibule and two ditching lines in the passenger compartment. The flight compartment escape ropes are stowed
R in the pilot's LH and co-pilot's RH side consoles; the
R forward vestibule escape rope is stowed in the top of the
R forward amenity stowage and the ditching lines are stowed in
R cupboards in the LH and RH centre amenity stowages inside
R the intermediate passenger and service door entrances.

2. Escape Ropes

A. Inspect the Flight Compartment Escape Ropes.

(1) Remove the flight compartment escape ropes (Ref. 25-61-11, Removal/Installation).

(2) Inspect each hook for corrosion, damage and security of attachment to the rope. Check that the clasp of each hook snaps to the closed position after being depressed and then released.

(3) Inspect each rope for cleanliness, damage, deterioration and security of end fitting.

(4) Check that each rope end shackle is secured to the bracket in its respective console by the attached pip-pin.

(5) Check that the grab handle, fitted to the roof above each pilot, is secure.

(6) Install the escape ropes (Ref.25-61-11, Removal/ Installation).

B. Inspect the Forward Vestibule Escape Rope.

(1) Remove the forward vestibule escape rope (Ref. 25-61-11, Removal/Installation).

(2) Unfasten the velcro tapes securing the pouch flaps and release the rope.

NOTE: Pouch and rope are stitched together.

(3) Inspect the hook for corrosion and damage. Check that the clasp of the hook snaps to the closed position after being depressed and then released.

(4) Inspect the rope for cleanliness, damage and deterioration. Check the security of the rope to the tab and to the hook ensuring that the rope joint whipping is sound.

(5) Inspect the stowage pouch for cleanliness, damage and deterioration. Check the security of the stitches securing the pouch to the rope.

(6) Install the escape rope (Ref.25-61-11, Removal/ Installation).

C. Inspect the Passenger Compartment Ditching Lines.

(1) Remove the passenger compartment ditching lines (Ref.25-61-11, Removal/Installation).

(2) Inspect each hook for corrosion, damage and security of attachment to the rope. Check that the clasp of each hook snaps to the closed position after being depressed and then released.

(3) Inspect each rope for cleanliness, damage and deterioration.

(4) Check the stowage bag for cleanliness, damage and deterioration.

(5) Install the ditching lines (Ref.25-61-11, Removal/ Installation).

Printed in England

EMERGENCY TORCHES - DESCRIPTION AND OPERATION

1. General

A. Emergency torches are placed on board the aircraft to comply with C.A.A. directives. These are for cabin crew use in an emergency associated power failure.

R B B. There are six torches located as follows:-

(1) One at station 398 alongside crew seat near galley No. 1.

(2) One at station 959 alongside exit door near toilet No. 2.

B B (3) One at station 1664 on the side of the Cabin Services Stowage - rear of Galley No. 5.

B B (4) One at station 1664 on the side of the Cabin Services Stowage - rear of Galley No. 6.

R B R B (5) One at station 1001 on forward face of amenity stowage, aft of mid right hand door.

R B R B (6) One at station 363 alongside crew seat, behind cupboard door, fwd of forward service door.

SMOKE HOODS - DESCRIPTION AND OPERATION

1. General

RB A. Smoke hoods are placed on board the aircraft as mandatory
RB equipment, for cabin crew and flight crew use, in an
RB emergency.

RB B. There are nine smoke hoods located in the following
RB positions:

RB (1) Three in the flight deck Zone 215, behind a door in
RB the rear left hand stowage.
RB (2) Two in the forward cabin Zone 221, inside the stowage
RB aft of door 1 left.
RB (3) Two in the mid cabin Zones 231 & 232. One inside the
RB forward bulkhead of wardrobe 4 (left hand), and the
RB other inside the forward bulkhead of wardrobe 3
RB (right hand).
RB (4) Two in the aft cabin Zones 241 and 242. One inside
RB the forward bulkhead of the stowage forward of door
RB 3L, and the other inside the forward bulkhead of the
RB stowage forward of door 3R.

SURVIVAL EQUIPMENT - DESCRIPTION AND OPERATION

1. General

Survival equipment comprises life jackets, life rafts, first aid kits, emergency packs, megaphones, ditching lines, escape ropes and search and rescue radio beacon sets. Emergency equipment includes axes, asbestos gloves, smoke goggles and torches (Ref. 25-60-00).
Inflatable slides and slide/rafts are used in the evacuation of the aircraft. They can be separated from the aircraft and the slide/rafts can be converted to life rafts; the slides may be used as aids to floating but are not intended to be used as free rafts. There is enough normal capacity in the slide/rafts and life raft for all the occupants of the aircraft. If the largest slide/raft cannot be used, all the occupants can be accommodated within the overload capacity of the remainder. If evacuation should be possible on one side only, the available overload capacity of the slide/rafts and life raft, capable of being launched from that side, would be sufficient for all the occupants.
For description and operating information regarding this equipment refer to:

Slide/Raft and Slide Systems	-Forward Passenger/Service Doors	25-64-00
Slide/Raft Systems	-Intermediate Passenger/Service Doors	25-65-00
Slide Systems	-Rear Service Doors	25-66-00

Survival equipment is stored in the following places:

Flight Compartment

In the miscellaneous equipment rack (Ref. Fig. 001).

Passenger Compartment

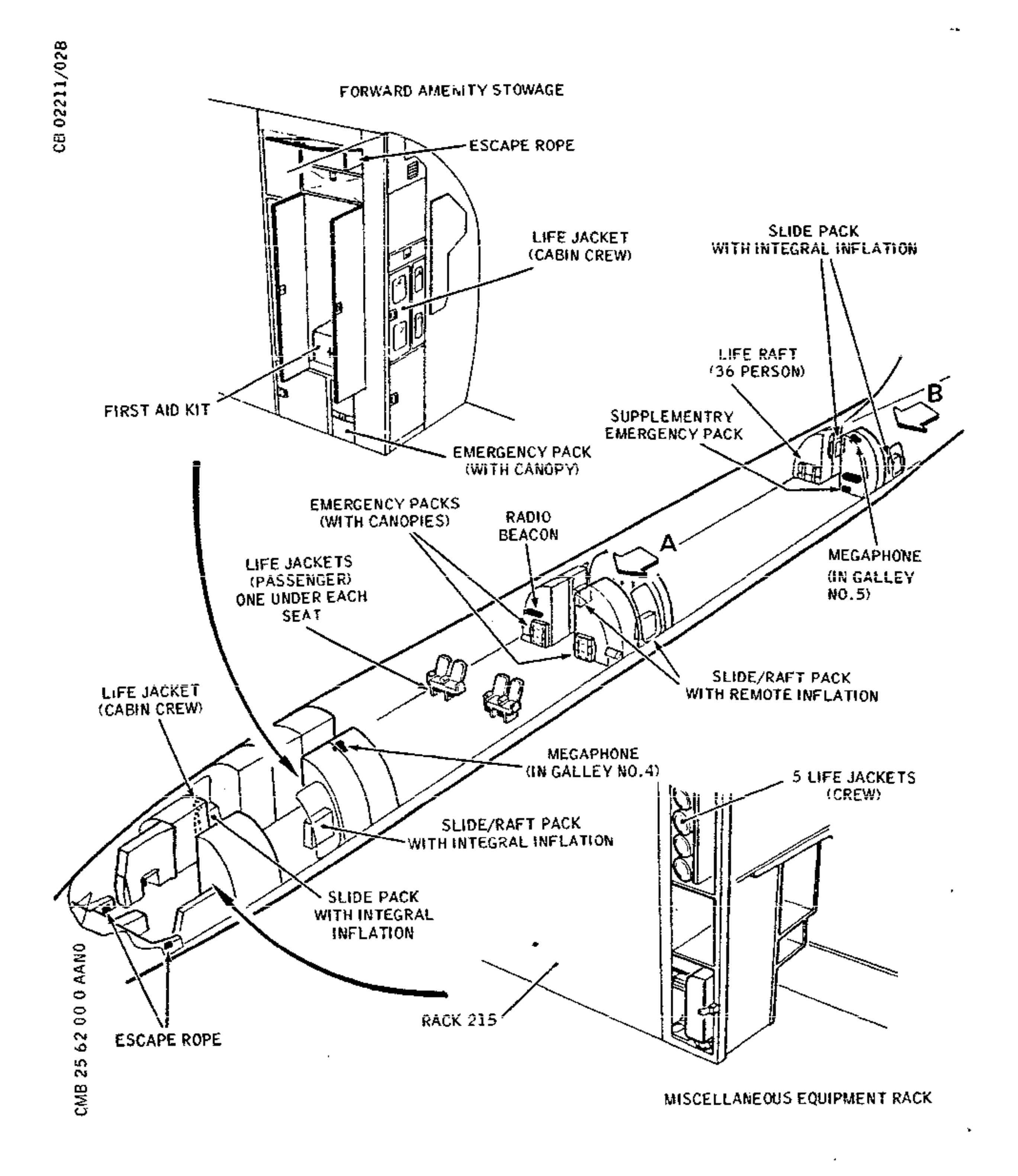
In the amenity stowages, at the rear of each passenger compartment cabin and beneath the seats (Ref. Fig. 002).

2. Life Jackets

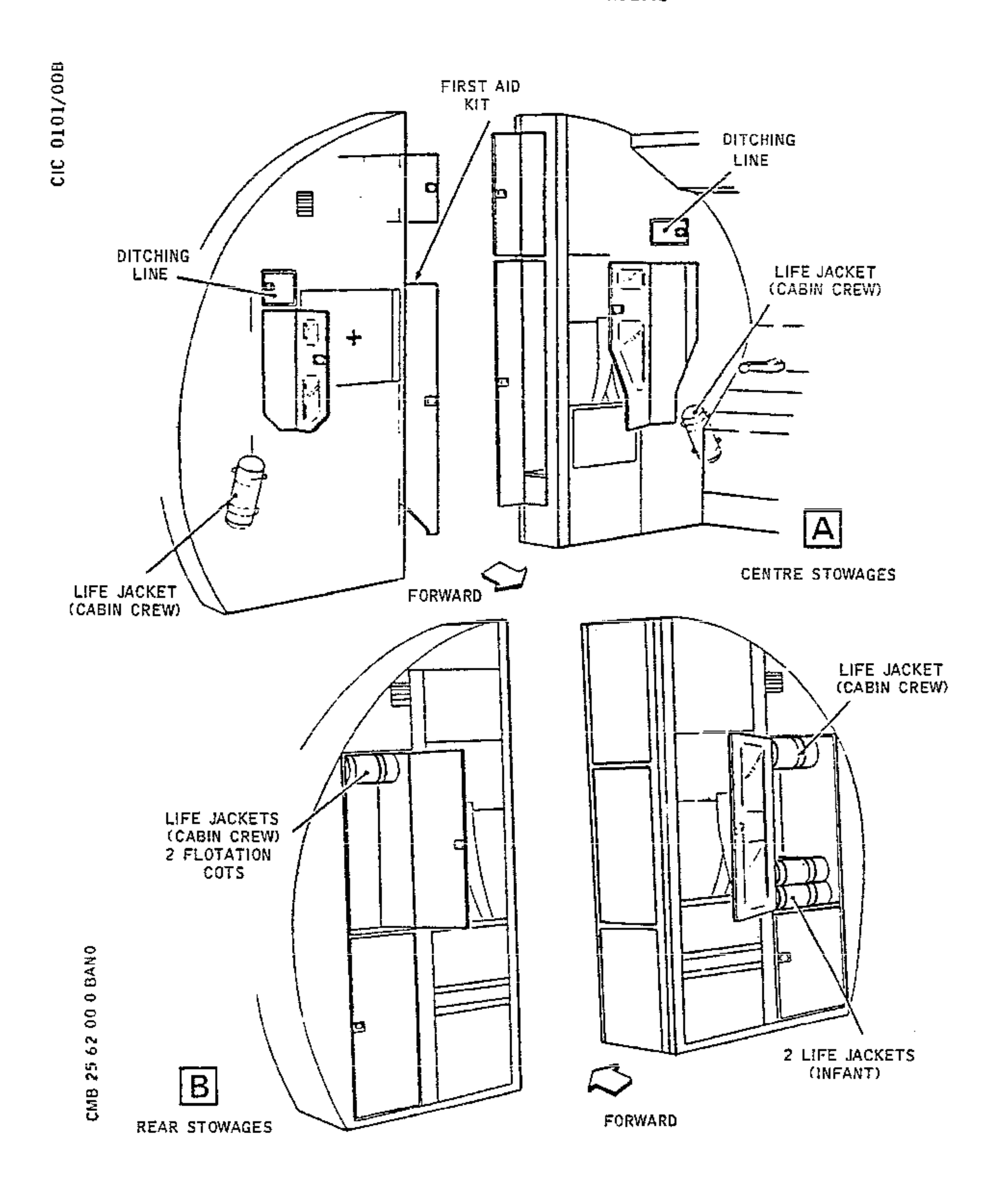
Flight Compartment

Five life jackets, for the use of the flight crew, in the miscellaneous equipment rack.

Passenger compartment



Survival Equipment - Flight Compartment
and Passenger Compartments
Figure 001



Survival Equipment - Intermediate
and Rear Vestibules
Figure 002

Passengers - one jacket under each seat.

R B Infants - two jackets in the RH rear
R B amenity stowage and two flotation
R B cots in the LH rear amenity stowage.

Cabin crew - one jacket in each amenity stowage and one on the RH side of the forward vestibule

3. Life Raft

A thirty-six person life raft pack is secured by straps to
B cross members attached to the seat rails at the rear LH
B side of the rear passenger compartment against the bulkhead
of galley No.5. It is released from its stowage by the use of the quick release features of the securing strap (Ref. 25-62-13) and is launched through any passenger compartment doorway. The life raft and its self erecting canopy are inflated by an integral system which is activated by retaining the operating cord when the raft pack is launched.

An emergency pack is contained within the life raft pack and a supplementary emergency pack is secured in a separate mounting at the rear LH side of the rear passenger compartment.

4. First Aid Kits

B Two kits are provided; one in each of the forward, and RH
B centre amenity stowages. (Ref. 25-62-11)

5. Emergency Packs

Three emergency packs are carried and contain the necessary items for the occupants of the three slide/rafts at sea. Each pack contains a canopy for its raft. They are stowed, one in the forward amenity stowage and two at the rear of the forward passenger compartment. A life raft supplementary emergency pack is located at the rear LH side of the rear passenger compartment (Ref. 25-62-12) for use with the 36 person life raft.

6. Megaphones

Two megaphones, to assist communication, are stowed, one in the forward LH galley (No.4) and one in the rear LH galley (No.5).

7. Escape Ropes and Ditching Lines

Flight Compartment

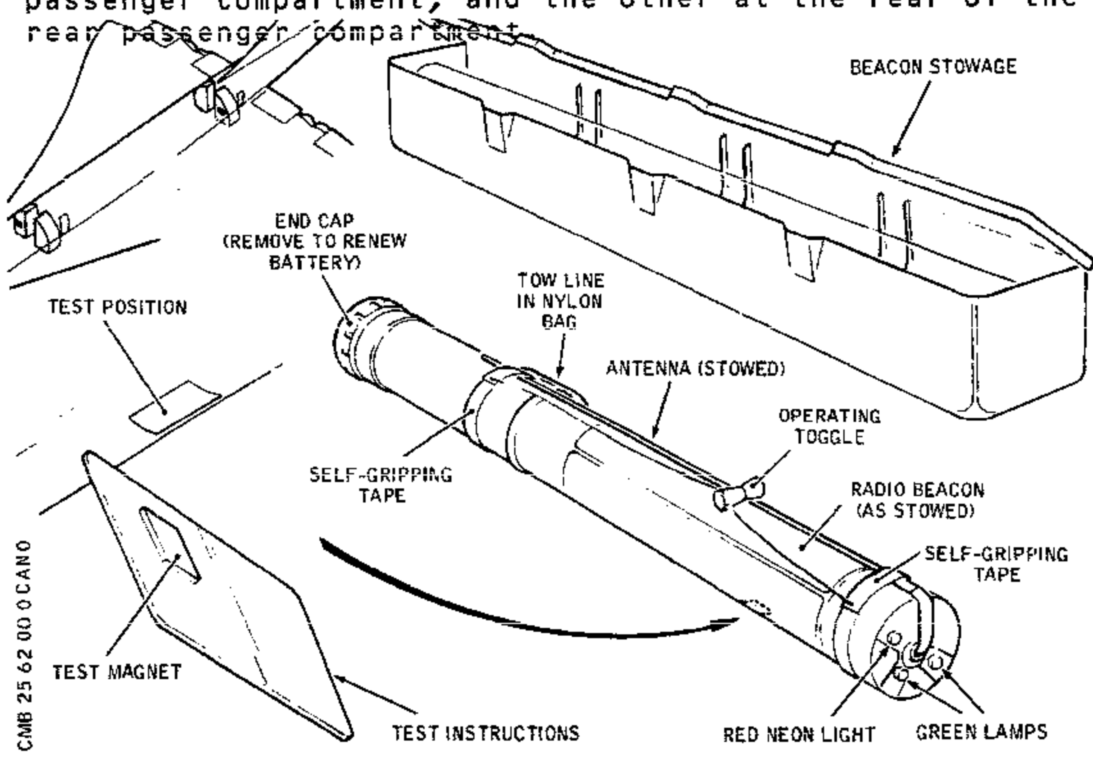
One escape rope in each side console.

Passenger Compartment

One escape rope is located in the forward amenity stowage and a ditching line is located in each centre amenity stowage.

8. Search and Rescue Radio Beacons (Ref. Fig. 003)
Beacon, radio, search and rescue

Two radio beacons are carried in the passenger compartment for use in the event of a forced landing or ditching. Each beacon is a self-buoyant, dual-frequency radio distress beacon transmitter which is battery operated, and provides continuous transmission on the international distress frequencies. One beacon is stowed at the rear of the forward passenger compartment, and the other at the rear of the rear passenger compartment.



Search and Rescue Radio Beacon
Figure 003

The beacon consists of a black-coloured cylinder which accommodates the transmitter and battery, with a flexible antenna, coloured international orange, protruding from

one end. It also has a built-in test system incorporating a neon (red) lamp and two green lamps on the end near the antenna. A tow-line, contained in a nylon bag, is secured to the outside of the cylinder.

Each beacon is stowed in a box having a spring-loaded lid which is secured closed with quick-release studs. When stowed, the antenna is secured along the length of the cylinder with self-gripping tapes which are also connected to the tow line by a red operating toggle.

Also contained in the box is a magnet and test instructions which are sealed in a single polythene bag. The battery can be renewed.

FIRST AID KITS - INSPECTION/CHECK

WARNING: IF IN ANY DOUBT AS TO THE ACCEPTANCE STANDARD OF THE FIRST AID KITS REFER TO THE APPROPRIATE MEDICAL AUTHORITY.

1. General

The first aid kits are located in stowages (Ref.25-60-00):

R B**ON A/C 001-006,
R B One kit, Ref. A2 and one kit, Ref. A50.
One kit, Ref. A2, in the RH centre amenity stowage.
R B One kit, Ref. A50, in the forward amenity stowage.

2. Inspection/Check

R B**ON A/C 001-006

A. Inspection

(1) Visually inspect the carrying case for cleanliness, for freedom from contamination, and for damage, particularly punctures and cracks.

R B (2) Ensure that the seal, on the carrying case, is intact and that it adheres to the case satisfactorily.

(3) Ensure that identification markings on the case are legible.

DESCRIPTION	PACKAGE	QUANTITY
Alka Seltzer Tablets	packet of 8	1 packet
Anti-Malarial Tablets-Adult	packet of 10	24 packets
Anti-Malarial Tablets-Childrens	packet of 10	12 packets
Antiseptic Cream (Savlon)		1 tube
Aromatic Ammonia Capsules	packet of 6	2 packets
Aspirin - Junior	packet of 2	6 packets
Aspro Tablets	packet of 2	25 packets
Benzedrex Inhalers		4
Chloramine T. Tablets	bottle of 50	1 bottle
Dettol Antiseptic	2 oz. bottle	l bottle
Eye Drops - Sulfomyl		l bottle
Indigestion Tablets	packet of 2	24 packets
Insect Repellant - Skeet-O-Stik		4 sticks
Paracetamol Tablets	packet of 2	12 packets
Throat Lozenges	packet of 4	12 packets
Sweetening Tablets (non-sugar)	packet of 100	1 packet
Travel Sickness - Kwells Tablets	packet of 2	24 packets
Water Testing Set		1
Assorted Adhesive Dressings	box of 74	1 box
Conforming Bandages - Crinx	3 inch size	3
Cotton Wool, Sterilized	1/2 oz.size	4 packets
Lint Dressings - small		6 packets
Lint Dressings - medium		6 packets
Lint Dressings - large		6 packets
Triangular Bandages		6
White Lint	1 oz. size	2 packets
Airway - S.A.L.A.D.		1
Eye Bath		1
Razor Knife or Disposable Scissors		1
Safety Pins		12
First Aid Booklet		1
Water Supplies Leaflet		1

First Aid Kit, Ref. A2 - Scale of Contents
Table 602

DESCRIPTION	QUANTITY
Amytal Tablets (12)	1
Anti-Malarial Tablets -Adults	12
Anti-Malarial Tablets - Childrens	6
Aspro Tablets (2)	25
Water Sterilizing Tablets	50
Morphine	6
Ampins Nikethamide (Stimulant)	3
Antiseptic Cream (Savlon)	1
Caladryl Cream	2
Insect Repellant (Skeet-O-Stik)	3
Bandages, Open Wove 2 inch	3
Bandages, Open Wove 3 inch	6
Bandages, Rubber	1
Bandages, Triangular	6
Dressings, Assorted Adhesive (75)	1
Dressings, Burn, Medium	6
Dressings, Lint, Medium	10
Dressings, Lint, Large	14
Gauze 2 1/2 yards Packet	1
Lint, White, 1 oz.	4
Plaster, Zinc Oxide 1 inch x 5 yards reel	1
Wool, Cotton Sterilized 1/2 oz.	4
Artery Forceps	1
Booklet, Cabin Crew Medical Manual	1
Labels and Pencils	
Linen Thread	1
Mucus Extractor	1
Safety Pins	12
Scissors, cutting	1
Case, Fibre	1
Cover for case	1
Resealing seal (Red)	1
Splint, inflatable, arm	1
Splint, inflatable, leg	1

First Aid Kit, Ref. A10 - Scale of Contents
Table 603

R **ON A/C 006-007,

B. Inspect the contents for cleanliness, damage and deterioration.

C. Inspect all items that have declared shelf lives; ensure that none is obsolete.

D. Remove and dispose of unserviceable items. Replace them with fresh stock, ensuring that the shelf lives remain valid until the next inspection is due. Ensure that all missing items are replaced.

E. Inspect all booklets, leaflets and other instructional matter for legibility and deterioration; renew as necessary.

Printed in England

EMERGENCY PACKS REMOVAL/INSTALLATION

1. General (Ref. Fig. 401)

There are three emergency packs in the passenger compartment. Two packs situated at the rear RH and LH sides of the forward passenger cabin are contained in preformed rigid plastic containers and are located in frames attached to the seat rails and cabin floor. The packs are retained in position by two adjustable strap assemblies. Another emergency pack situated in the forward LH amenity stowage is contained in a yellow coloured fabric cover shaped with plywood stiffeners and is located in its own compartment. The pack is retained in position by an adjustable strap assembly which has a quick release facility.

2. Frame Mounted Emergency Packs (Ref. Fig. 401)

A. Remove Pack.

(1) Remove and retain the Velcro patch retaining the cable release handle. Pull the handle to release the strap assemblies.

(2) Separate the carrying handles from each other.

(3) Hold the retaining straps clear and lift the pack from the frame.

B. Install Packs.

(1) Ensure that the strap assemblies are serviceable and the frame is secure.

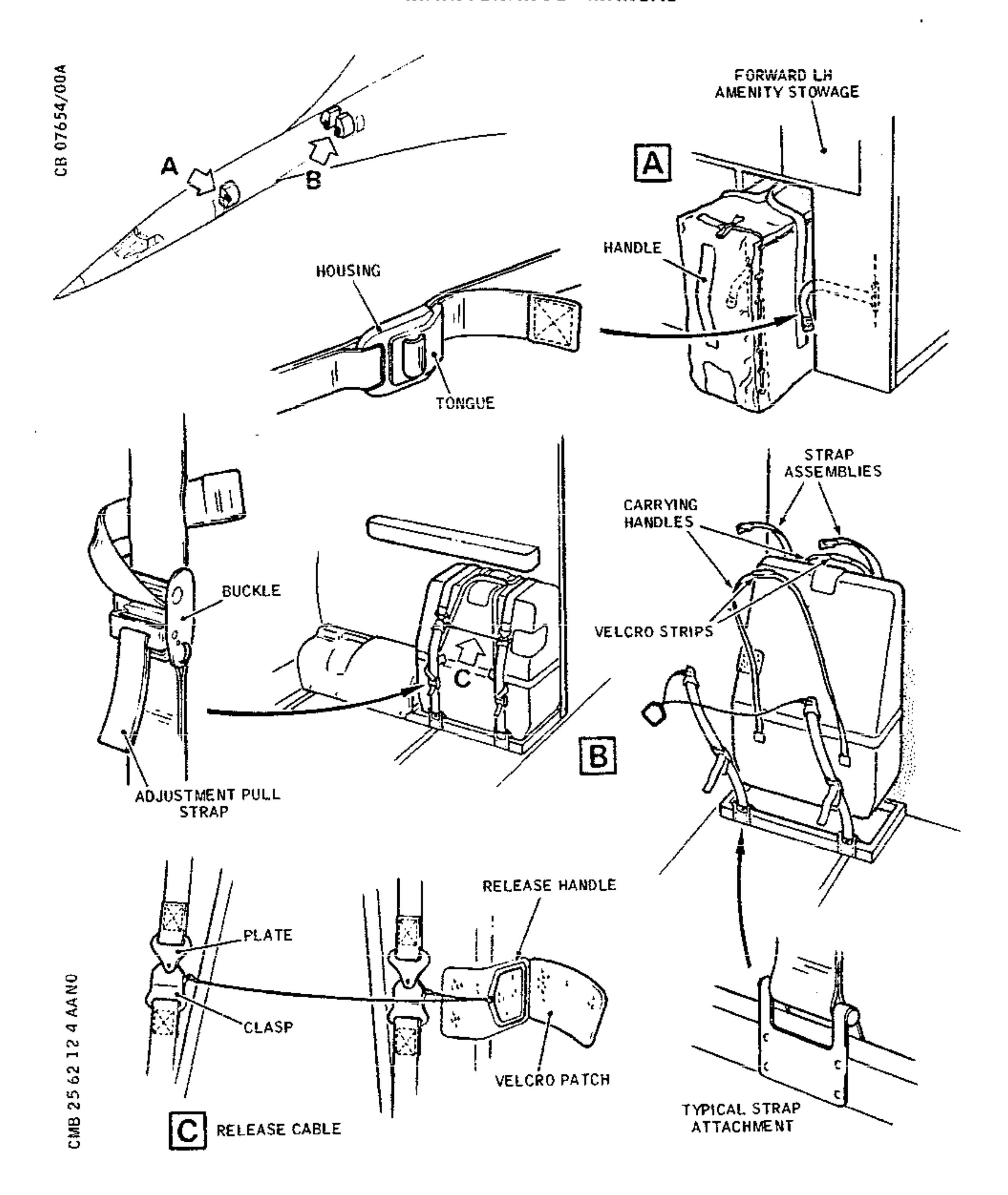
(2) Ensure that the carrying handles are secure and the container is undamaged.

(3) Hold the retaining strap assemblies clear and lower the pack into the frame. Stick the carrying handles together at the top of the pack.

(4) Extend each strap assembly by pulling on the adjustment pull strap.

(5) Connect the plates and clasps and tighten the strap assemblies simultaneously by pulling upwards on the free ends of the straps. Tuck the free ends under the down straps.

(6) Position the release cable horizontally and retain the handle in its recess with the Velcro patch



Emergency Pack - Installation
Figure 401

removed in para A(1).

3. Amenity Stowage Emergency Pack (Ref. Fig. 401)

A. Remove Pack

(1) Hook the fingers under the tongue of the buckle assembly and pull rearwards to release the straps.

(2) Hold the retaining straps clear and withdraw the pack by pulling on the end handle.

B. Install Pack.

(1) Ensure the carrying handles are secure and the fabric container is undamaged, and that the strap assembly is serviceable and secure.

(2) Check that the compartment is clear.

(3) Enter the pack into its compartment and stick the carrying handles together at the top of the pack. Slide the pack fully into the compartment.

(4) Extend the strap by sliding the buckle tongue towards the free end of the strap.

(5) Assemble the tongue to the buckle housing and tighten the strap assembly by pulling forward on the free end of the strap.

THIRTY SIX PERSON LIFE RAFT PACK AND CROSS MEMBER SUPPORTS - REMOVAL/INSTALLATION

1. General (Ref. Fig. 401)

The thirty six person life raft is packed in a preformed
R B rigid plastic container which is situated at the rear LH
R B side of the rear passenger cabin against the bulkhead
R B of galley No.5. The pack rests on two cross members
attached to the seat rails and is retained in position by two adjustable straps which pass under the cross members. Each strap is connected by a plate and clasp. The clasps are fitted with a cable operated quick release mechanism.

2. Life Raft Pack (Ref. Fig. 401)

A. Remove Life Raft Pack.

(1) Remove and retain the Velcro patch retaining the cable release handle. Pull the handle to release the strap assemblies.

R (2) Separate the carrying handles from the Velcro strips on the side of the pack.

(3) Hold the retaining straps clear and lift the pack from the cross members.

B. Install Life Raft Pack.

(1) Ensure that the carrying handles are secure and the container is not damaged.

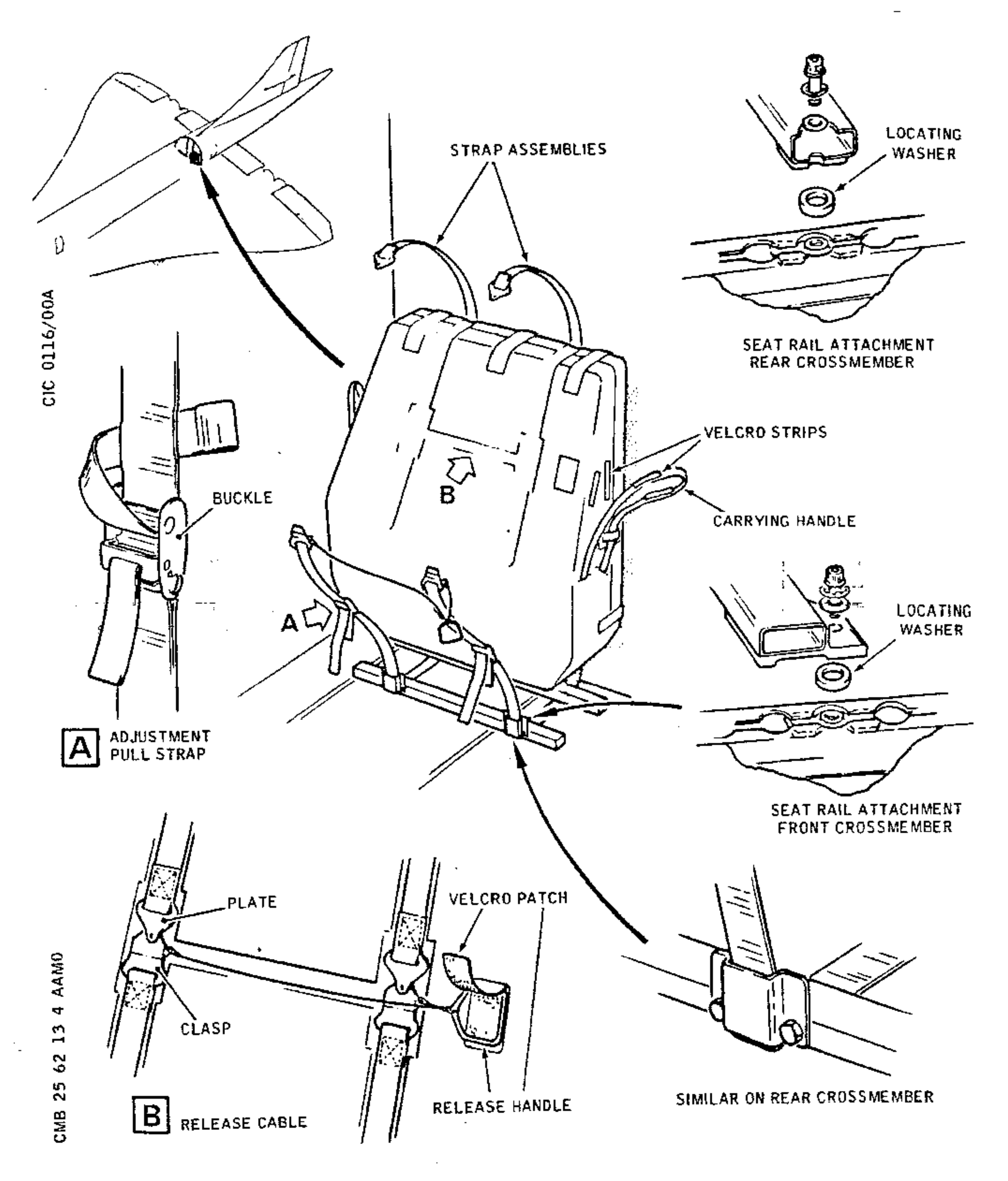
(2) Ensure that the strap assemblies are serviceable and check the cross members for security.

(3) Hold the strap assemblies clear and position the pack on the cross members.

(4) Extend each strap by pulling the appropriate adjustment pull strap.

(5) Connect the plates and clasps. Ensure that the strap assemblies lie in the recesses on the container and the clasps and the release cable will align with the horizontal recess when the straps are tightened.

(6) Tighten both the straps simultaneously by pulling upwards on the free ends. Tuck the free ends



R Life Raft Pack and Cross Member Supports - Installation B
Figure 401

behind the down straps.

(7) Lay the release cable along the horizontal recess on the container and retain the handle with the Velcro patch removed in para A(1).

R (8) Refasten the carrying handles to the Velcro strips on the side of the pack.

3. Life Raft Cross Members (Ref. Fig. 401)

A. Remove Cross Members

(1) Remove the life raft (Ref. para. 2).

(2) Remove the hexagon recess head bolts and washers retaining the cross members to the seat rails.

(3) Remove the cross members complete with the strap assemblies.

NOTE: The strap assemblies are retained on the cross members by two yokes on each member.

B. Install Cross Members.

(1) Ensure that the plates in the seat rails are serviceable and the locating washers are in position.

(2) Ensure that the cross members, yokes, and strap assemblies are not damaged.

(3) Position the strap assemblies and align the cross members with the plates in the seat rails. Secure with washers and hexagon recess head bolts.

(4) Torque load the bolts to between 71 and 80 lbf in (0.80 and 0.90 mdaN).

(5) Install the life raft (Ref. para. 2).

R

SEARCH AND RESCUE RADIO BEACON - SERVICING

1. General

Two radio beacons are stowed in the aircraft. One beacon is located on the right hand bulkhead at the rear of the forward compartment, and the other is located on the left hand bulkhead at the rear of the rear passenger compartment. The battery in each beacon can be renewed.

RB 2. Search and Rescue Radio Beacon (BE 369 Mk.2 and Mk.4)

A. Equipment and Materials

DESCRIPTION	PART NO.
13.4V (nominal) manganese alkaline battery	Burndept type RB B69064 Mk.2 units RB B79229 Mk.4 units
Grease MS4 (Ref.20-30-00, No.066)	-

B. Renew Battery (BE 369 Mk.2 and Mk.4 Beacons)

(1) Release the three knurled quick-release studs securing the box lid.

(2) Lift the spring-loaded lid and remove the beacon from the box. Do not pull the red operating toggle.

(3) Unscrew the base cap.

(4) Remove the battery, complete with a rubber packing ring, from the end aperture taking care not to tension the attaching battery cables. Disconnect the plug from the battery socket. Remove the battery.

(5) Remove the two rubber packing rings from the old battery.

(6) Unpack the new battery. Check that it is undamaged externally, that the date of manufacture does not indicate a battery life exceeding 2 years, and that the 'date of change' indicates that the remaining battery life will be beyond the date of the next maintenance check.

(7) Remove and retain the spare 'date of change' label.

(8) Thread the battery socket through two of the rubber packing rings and connect the socket to the plug ensuring that the side retaining clips engages their slots. Insert the two packing rings and the battery into the cylinders, with the plug and socket positioned on the side of the battery, followed by another rubber packing ring.

NOTE: The packing rings prevent excess battery movement.

(9) Remove the rubber O-ring seal from the groove at the base of the cylinder. Check that the seal is serviceable, and lightly lubricate it with grease. Reposition the seal.

(10) Replace the base cap, complete with its weight, and fully tighten.

(11) Remove the old 'date of change' label from the outside of the beacon cylinder, and stick the new 'date of change' label in its place.

(12) Operationally test the beacon as detailed in 25-62-14, Adjustment/Test.

(13) Stow the beacon in its box, and secure the lid with the quick-release studs.

R

SEARCH AND RESCUE RADIO BEACON - ADJUSTMENT/TEST

1. General

Two search and rescue radio beacons are stowed in the aircraft. One beacon is located on the right-hand bulkhead at the rear of the passenger forward compartment, and the other is located on the left-hand bulkhead at the rear of the passenger rear compartment. Each beacon is stowed in a box at waist height.

2. Operational Test

A. Preparation

(1) Release the three knurled quick-release studs securing the box lid.

(2) Lift the spring-loaded lid, and remove the beacon and the test magnet from the box. Do not pull the red operating toggle.

B. Test

CAUTION: THE TEST PERIOD MUST BE KEPT TO A MINIMUM TO AVOID ALERTING A RADIO RECEIVER.

RB (1) BE369 Mk.2 units.

(a) Place the test magnet on the side of the beacon indicated by a red area. Do not remove the magnet from its plastic bag.

(b) Check that the two green test lamps on the beacon head flash, in sequence, at a rate of approximately 1 flash per second, and that the adjacent red neon lamp illuminates at a similar frequency.

NOTE: If only one test lamp operates, it may be necessary to reposition the test magnet slightly.

(c) If both green lamps fail to illuminate, fit a new battery (Ref. 25-62-14, Servicing), then retest as above.

RB (2) BE369 Mk.4 units

RB (a) Hold the test magnet on the side of the beacon
RB in the position indicated by the black area in
RB the red band, without taking the magnet out of
RB the plastic bag and without removing the beacon
RB from its stowage.

RB (b) Check that the red test lamp on top of equipment
RB operates either:

RB (i) Pulsed at 1 pulse per second rate for BE369
RB Mk4/S, or
RB (ii) Continuous for BE369 Mk4/C.

C. Conclusion

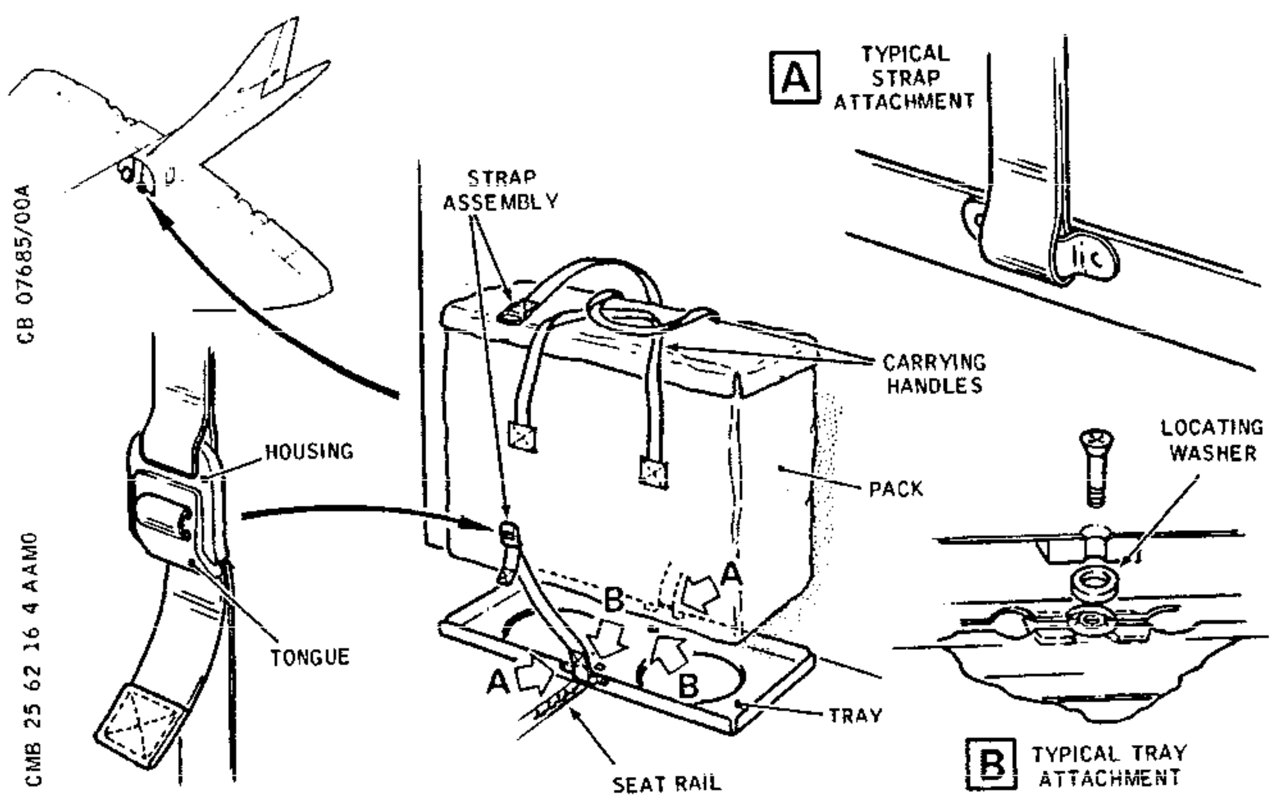
(1) Refit the beacon and the test magnet in the stowage box.

(2) Close the lid of the stowage box and secure it with three quick-release studs.

SUPPLEMENTARY EMERGENCY PACK (LIFE RAFT) AND SUPPORT TRAY - REMOVAL/INSTALLATION

1. General (Ref. Fig. 401)

The life raft supplementary pack is contained in a yellow coloured polyvinalchloride cover with plywood stiffeners and is situated at the rear LH side of the rear passenger cabin. The pack is located in a tray and is retained by a single strap which has a quick-release facility.



Supplementary Emergency Pack (Life Raft) - Installation
Figure 401

2. Supplementary Emergency Pack (Ref. Fig. 401)

A. Remove Pack

(1) Hook the fingers under the tongue of the buckle assembly and pull upwards to release the straps.

(2) Hold the straps clear and remove the pack from the tray.

B. Install Pack

(1) Ensure that the polyvinalchloride cover is undamaged and the carrying handles are secure.

(2) Check the tray for security to the seat rails.

(3) Hold the straps clear and position the pack in the tray.

(4) Extend the strap by sliding the tongue towards the free end.

(5) Fold the carrying handles over the top of the pack.

(6) Assemble the tongue to the buckle housing and tighten the strap assembly by pulling downwards on the free end.

3. Support Tray (Ref. Fig. 401)

A. Remove Tray

(1) Remove the supplementary emergency pack (Ref. para. 2).

(2) Remove the countersunk head bolts securing the tray to the seat rail; remove the tray and locating washers.

B. Install Tray

(1) Ensure that the plates in the seat rail are serviceable and position the locating washers.

(2) Ensure that the mounting tray assembly is not damaged.

(3) Align the tray holes with the plates in the seat rail and wet-assemble the countersunk head bolts with Locktite in accordance with 20-25-11. Torque load each bolt to between 71 and 80 lbf in (0.80 and 0.90 mdaN).

(4) Install the supplementary emergency pack (Ref. para. 2).

MEGAPHONE - ADJUSTMENT/TEST

1. General

Two battery powered megaphones are stowed, one in the forward LH galley (No.4), and one in the rear LH galley (No.5). Periodic checks are made on the battery voltage and adjustment is made to the megaphone gain control.

2. Battery Voltage Test

A. Equipment and Materials

DESCRIPTION	PART NO.
Multimeter	-
Crocus cloth	-

B. Test battery.

(1) Open the quick-release strap and remove the megaphone from its mounting bracket.

(2) Set the multimeter to 18 volts d.c. and connect it to the megaphone:

(a) Connect the common lead from the multimeter to the black test jack on the megaphone.

(b) Connect the positive lead from the multimeter to the red test jack on the megaphone.

(3) Depress the trigger switch on the megaphone and check that the multimeter indicates 18 volts d.c.

(4) Keep the trigger switch depressed for 5 seconds and check that the multimeter continues to indicate 15 volts d.c. or more. If the multimeter indication drops below 15 volts d.c. fit new batteries as detailed in operation (5). If the indication is 15 volts d.c. or more proceed to carry out the gain control adjustment (Ref.para.3).

(5) To renew the batteries in the megaphone:

(a) Release the cover latches on the side of the

housing and lift the cover, taking care not to strain the microphone cable.

(b) Remove the batteries; check that the battery contacts in the housing are clean, if necessary polish them with crocus cloth.

(c) Observe the correct battery polarity as shown on the contact board and install the new batteries. Fit and secure the cover.

(d) Retest the battery voltage as detailed in operations (2) to (4) above.

3. Gain Control Adjustment

A. Adjust.

(1) Check the battery voltage (Ref.para.2).

(2) Remove the gain control protective cap.

(3) With the trigger switch depressed, count into the microphone and adjust the gain control clockwise until either feedback occurs or control is fully clockwise.

(4) If feedback occurs adjust the gain control counter-clockwise until feedback stops.

(5) Replace the protective cap.

4. Operational Test

A. Test

(1) Hold the microphone close to the mouth with the speaker pointing at the opposite end of the aircraft passenger compartment.

(2) Hold the trigger switch depressed and test count slowly in a clear, distinct voice. Ascertain that the voice output can be heard clearly throughout the compartment.

(3) If either the voice output is weak or feedback is present readjust the gain control.(Ref. para.3).

(4) Place the megaphone in its stowage position and secure it with the quick-release strap.

R B The expiry date of the megaphone is 6 months from the date new batteries are fitted.

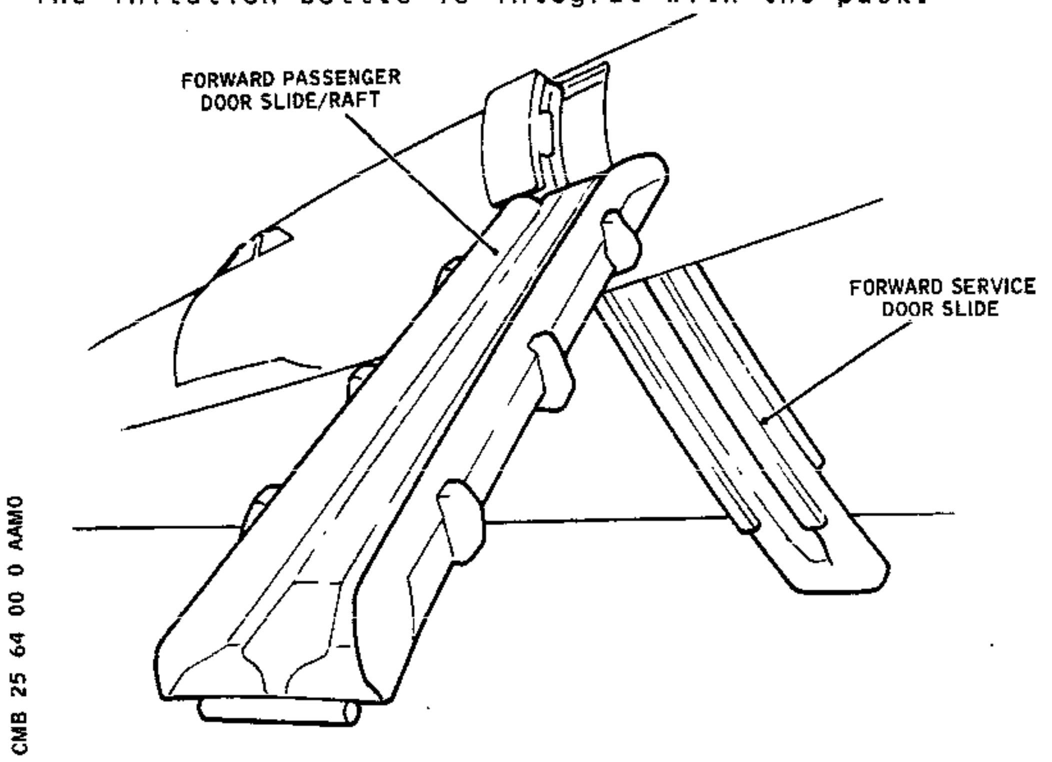
R B Manufacture a label from red dymotape and affix it to the horn of the megaphone in such a position that it can be read with the unit fitted in its stowage.

R B To avoid any confusion in the expiry date the month should be quoted in words, e.g. "EXPIRES 8TH MAY 1979".

SLIDE/RAFT SYSTEM (FORWARD PASSENGER AND SERVICE DOORS) - DESCRIPTION AND OPERATION

1. General (Ref. Fig. 001)

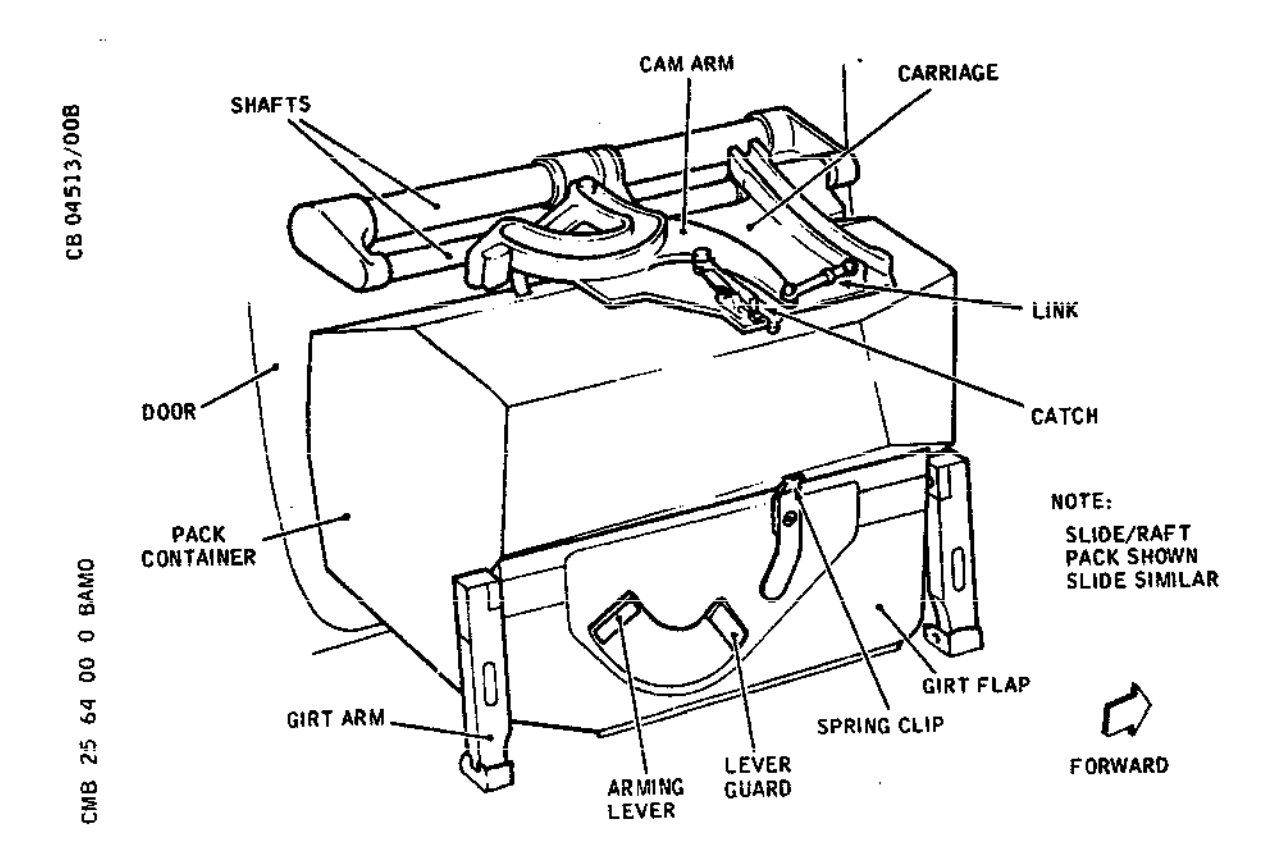
An inflatable slide/raft is stowed on the forward passenger door and an inflatable slide is stowed on the forward service door to enable passengers and crew to evacuate the aircraft during an emergency. An independent system is incorporated in each door to deploy the slide or slide/raft and, when armed, the system is operated by opening the respective door from inside the aircraft using the door inner handle. This action releases the slide or slide/raft through the doorway where it inflates automatically. If the door is opened from the outside using the door outer handle the system is automatically disarmed. After deployment in a forced sea landing, quick release facilities at the door enable the slide/raft to be used as a raft and the slide as an additional flotation aid. Each system comprises the pack (complete with girt flap), girt arms, and the carriage and disarming mechanisms. The inflation bottle is integral with the pack.



Forward Doors Escape Slide/Rafts
Figure 001

2. Slide and/or Slide Raft Pack (Ref. Fig.002 and 003)

The pack comprises the slide or slide/raft stowed in its collapsible container made up of hinged panels and a girt flap. It is secured to the door by a catch and two steadying hooks on the door carriage mechanism that engage a bobbin and two slots respectively in the container. When the container is released



Forward Passenger Door Slide/Raft Pack
Figure 002

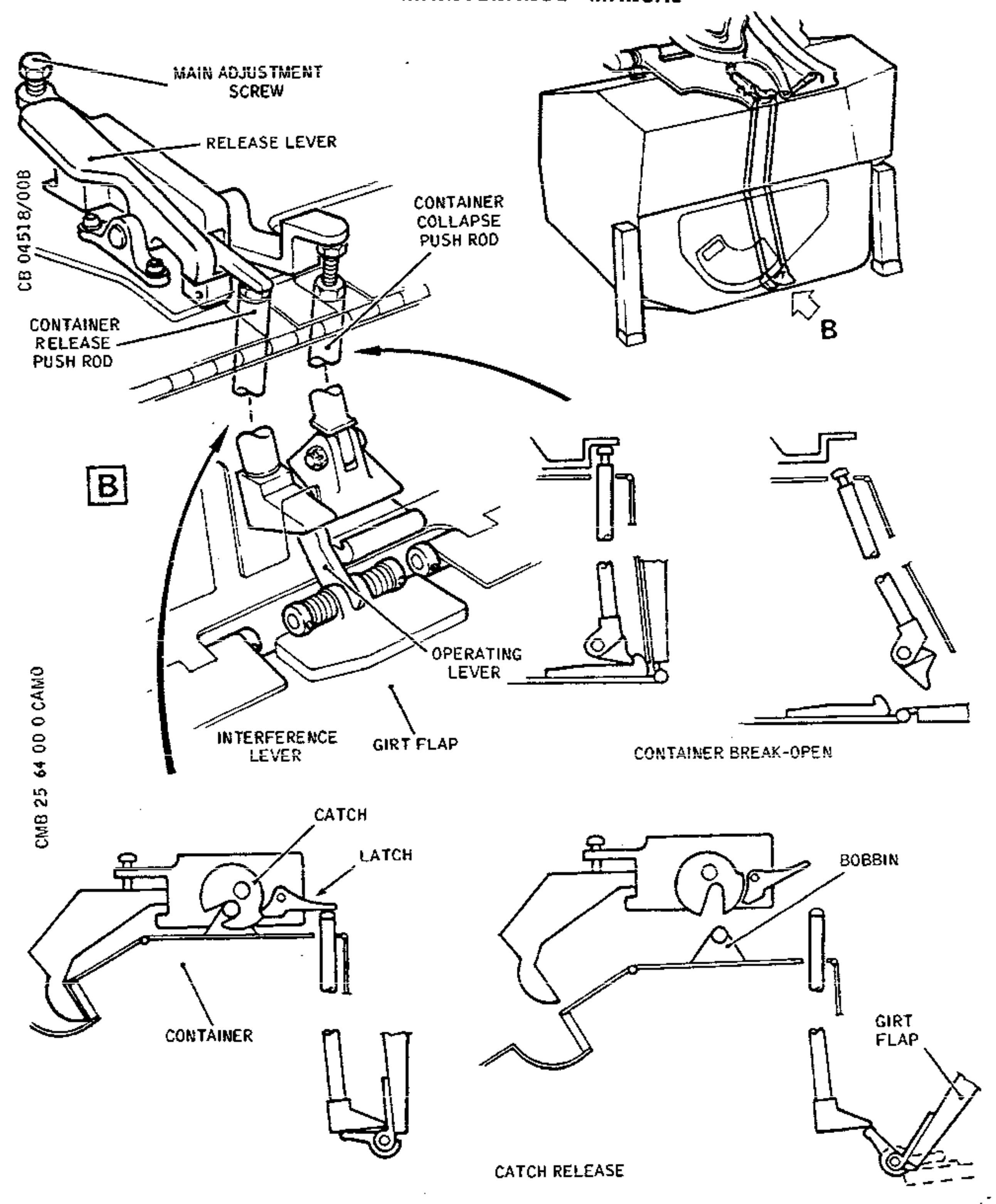
it breaks open to precipitate the slide or slide/raft through the open doorway. On the inboard panel are two push rods which extend from the girt flap hinge to the catch, and which form part of the release mechanism. One is the release rod that trips the latch to free the container from the door. The other is the collapse rod that permits the container to open after release. A coil spring fitted to the release rod provides sufficient restraint to prevent accidental operation by vibration or 'G' forces.

The slide and slide/raft, fabricated from neoprene proofed nylon fabric comprises an inflatable tubular structure supporting an anti-static slide path and raft floor area, inflation system, aspirator valves and electrical battery pack. The door sill apron, by which the slide or slide/raft is secured to the container, incorporates a quick release facility so that they can be disconnected from the aircraft.

R AFTER SB 25-081

R The slide and slide/raft, fabricated from polyurethane coated
R nylon fabric comprises an inflatable tubular structure
R supporting an anti-static slide path and raft floor area,
R inflation system, aspirator valves and electrical battery
R pack. The door sill apron, by which the slide or slide/raft
R is secured to the container, incorporates a quick release
R facility so that they can be disconnected from the aircraft.

INTENTIONALLY BLANK



Release Mechanism
Figure 003

R

R

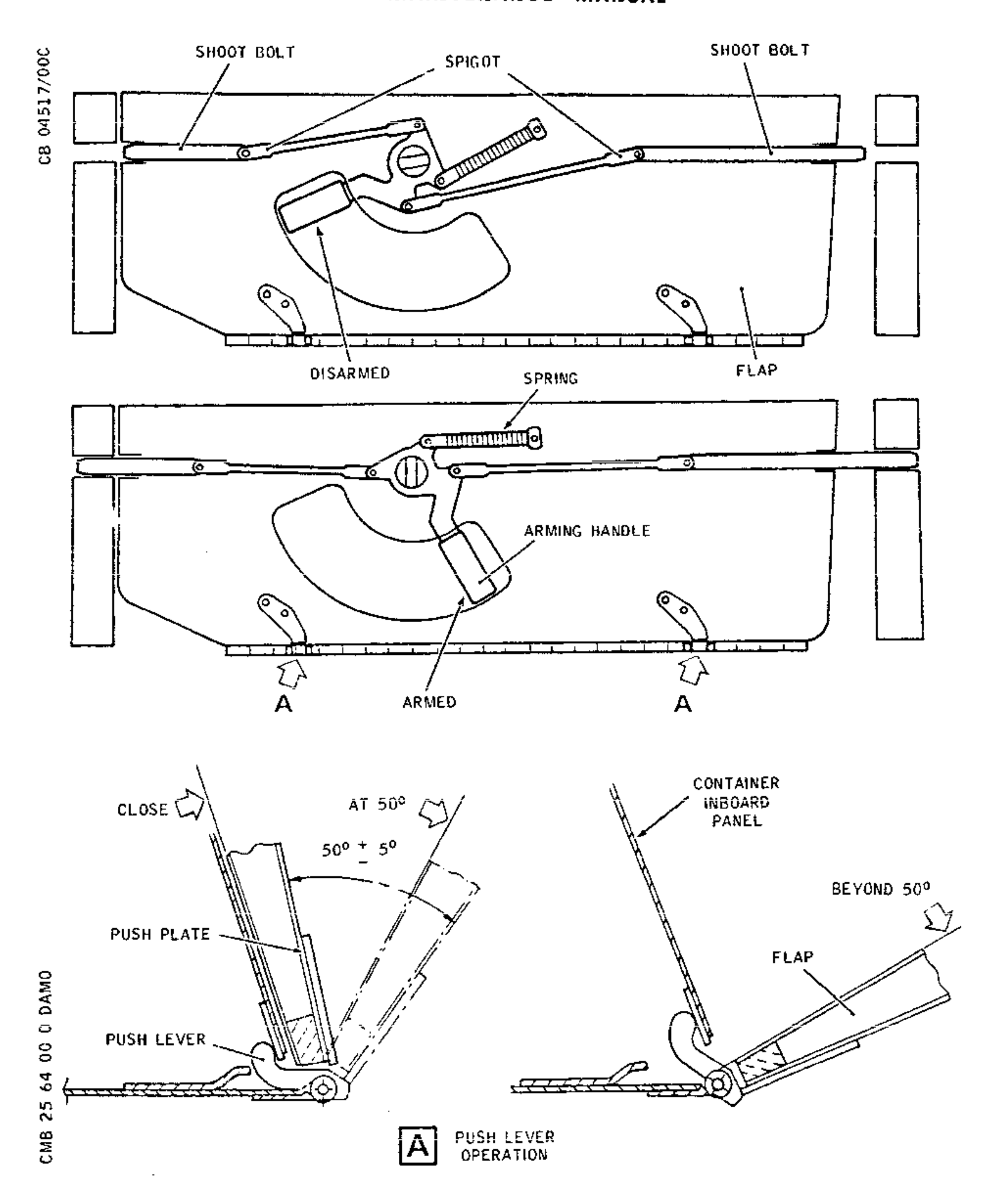
The inflation system forms an integral part of the slide and comprises automatic/manual inflation initiation line, high pressure air cylinder, gas delivery hoses, pressure regulator and aspirator valves. An operating valve is assembled to the neck of the cylinder and is fitted with a charging connection, a high pressure safety outlet plug and a contents pressure gauge that is visible when the slide is packed. A manual override operating lanyard is routed from the valve to the slide apron. The lanyard is fitted with a red webbing grab handle that is attached to the door-sill apron with 'Velcro' fastener tape. The instruction PULL TO INFLATE is stencilled near the handle.

A pressure relief valve is located at the lower end of the slide, also a deflation plug to facilitate packing.

3. Girt Flap (Ref. Fig. 004)

The girt flap hinged to the container bottom panel is used to arm the system and anchor the slide. An arming lever on the flap operates a linkage, within the flap, that extends or withdraws two shoot bolts. When the lever is set to DISARMED, the shoot bolts are withdrawn and the flap is latched to the container. When the lever is set to ARMED the flap is unlatched from the container and the shoot-bolts are extended to engage the girt arms and form the means by which the slide is anchored. A spring clip on the girt flap holds the flap in position against the container to ensure free movement of the shoot bolts into the girt arms.

Incorporated in the girt flap hinge are two levers (Ref. Fig. 003). One is an operating lever beneath the foot of the release push rod and when the girt flap hinges down lifts the push rod to release the catch. The other is an interference lever, which, if the operating lever is incorrectly located with the release rod, will protrude through an aperture in the girt flap to prevent the arming lever being set to ARMED. Also incorporated in the flap hinge are two spring-loaded push levers whose function is to push the container open when it is released. When the girt flap hinges down to 50 deg., push plates on the girt flap contact and pivot the push levers so they exert pressure on and push open the inboard panel of the container. The push lever spring prevents chatter and holds the lever flat to the floor after container deployment.



R

Girt Flap Mechanism
Figure 004

4. Girt Arms

The girt arms (Ref. Fig.002 and 004) fitted one on either side of the doorway, are hinged posts in which the girt flap shoot bolts engage to anchor the pack. Each arm is bolted to a shaft that pivots in a floor fitting and is automatically locked in the vertical position by a spring-loaded lever within the arm. The arm is freed by depressing a striker plate at the top of the lever. This striker plate is accessible through a hole in the top of the arm in which the shoot bolt engages. A return-spring assembly connected to each girt arm shaft, except on the rear girt arm of the service door, spring loads each arm to the vertical position. The service door rear girt arm is fitted with a ratchet and pawl to retain the girt arm in the lowered position after release. When the system is armed the shoot bolt depresses the striker plate thereby tripping the lever and leaving the girt arm free to hinge outward.

5. Carriage Mechanism

The carriage mechanism (Ref. Fig.002 and 003) supports the
R pack and maintains it centrally in the doorway during the initial movement of the door. It consists of two tubular shafts to which are fitted a carriage, cam arm and link. The outer shaft carries a support fitting by which the mechanism is bolted to the door main hinge yoke. The cam arm pivots on the support fitting and is connected by the link to the carriage which moves along the shafts on ball bushings and rollers. Guide channels on both the carriage and the cam arm accommodate rollers on the main hinge and these rollers
R control the movement of the carriage as the door opens. Integral with the carriage are the two hooks and the catch that steady and support the container. When the container is fitted to the door, the two slots and the bobbin in the container engage the hooks and the catch respectively. The catch is a cam hook with a spring-loaded latch to secure it, both mounted on a pivoted body with a main adjustment screw. This screw is used to adjust the fit of the container with the carriage. Tripping the latch frees the cam hook and releases the container. A release lever enables the latch to be tripped manually.

6. Disarming Mechanism (Ref. Fig. 005)

This mechanism disarms the system when the door is opened using the outer handle. The mechanism comprises two separate assemblies: one in the door and the other fitted to the adjacent door surround structure. The disarm mechanism in the door extends a trip bolt through the side of the door when the outer handle disarm button is depressed. For a

complete description refer to 52-11-11.

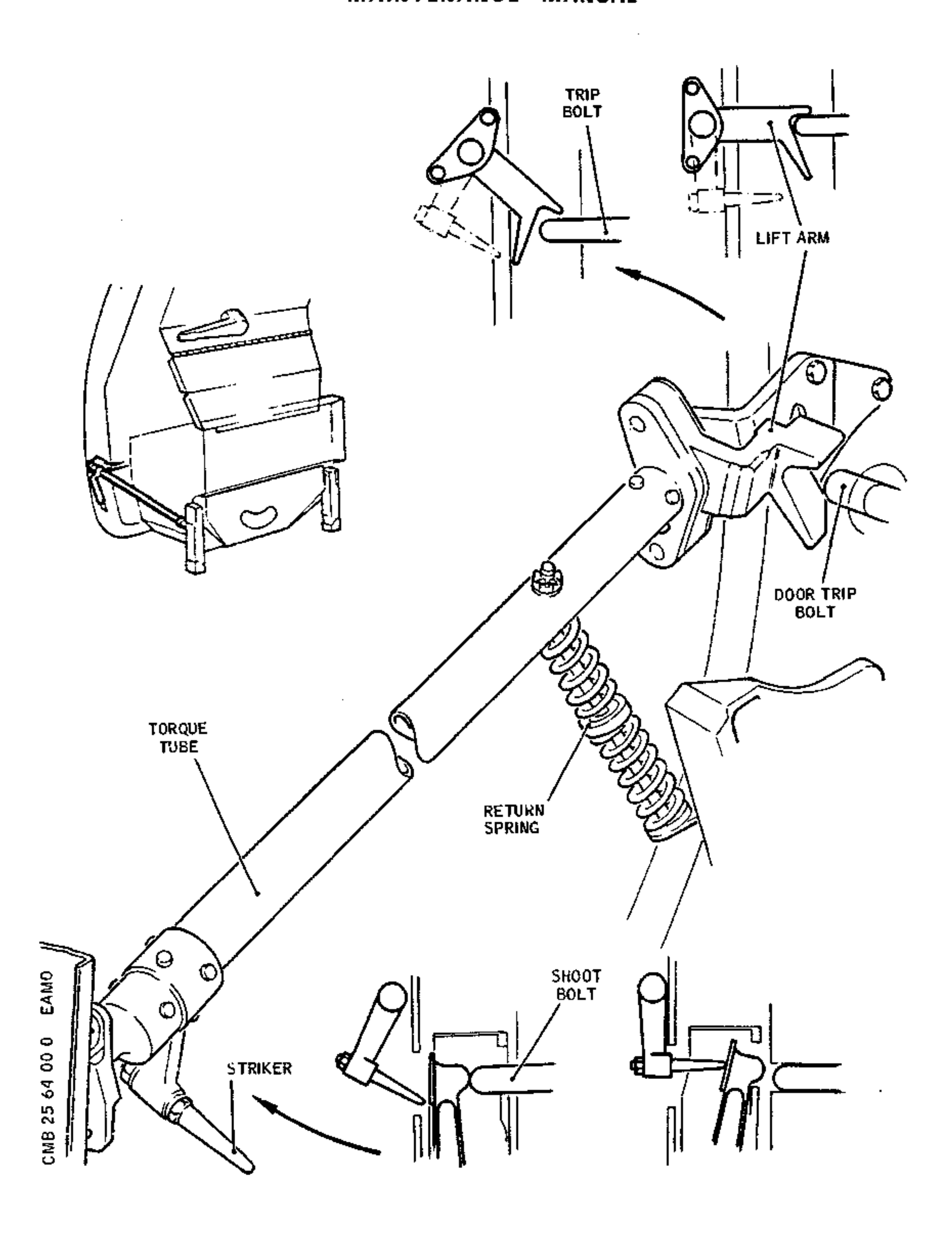
The disarm mechanism on the door surround structure consists of an axially mounted torque shaft with a striker fitted to its inboard end and a lift arm fitted to its outboard end. When the door trip bolt engages the lift arm the tube is rotated giving movement to the striker. A spring assembly returns the tube to its former position.

7. Operation (Ref. Fig. 006)

The system is manually armed, after the door is closed, by setting the arming lever on the girt flap to ARMED. Opening the door using the door inner handle, operates the system. Setting the arming lever to ARMED extends the shoot bolts from the girt flap to engage in the girt arms and unlatch the flap from the container inboard panel. As each bolt enters its respective girt arm it trips the locking lever within the arm leaving each arm free to pivot. When the door commences its outward swing the carriage mechanism maintains the container centrally in the doorway and the girt flap and girt arms hinge down under the pull from the container. As the girt flap hinges down the lever on the flap hinge, after a degree of free movement for correct timing, lifts the
R release push rod to free the container latch and the girt
R flap push levers force the container inboard panel open.
R The container drops from the door, permitting the collapse
R push rod to lift and its catch to rotate and release the
R inboard panel from the bottom panel. This permits the
R container to hinge open and deploy the slide or slide/raft.

As the slide or slide/raft deploys from the container, the automatic operating line is tensioned and withdraws the firing cable from the cylinder operating valve. The container remains suspended from the door sill, underneath and clear of the slide, the container side panels having been thrown clear.

The slide will hang from the aircraft doorway momentarily retained in the folded mode by a 'Velcro' fastener break out device. The pressure build-up in the upper transverse tube ensures that the slide or slide/raft erects in correct alignment to the aircraft exit. As inflation continues, the slide or slide/raft chambers distend until the pressure build-up is sufficient to separate the break out device fastenings; the slide or slide/raft will then project itself outward from the aircraft and extend to the ground. The lighting system actuating cord tensions and extracts the plastic switch-pin from the power pack, switching the lights "ON". The side tubes will finally straighten to provide a steady slide support for the evacuees.



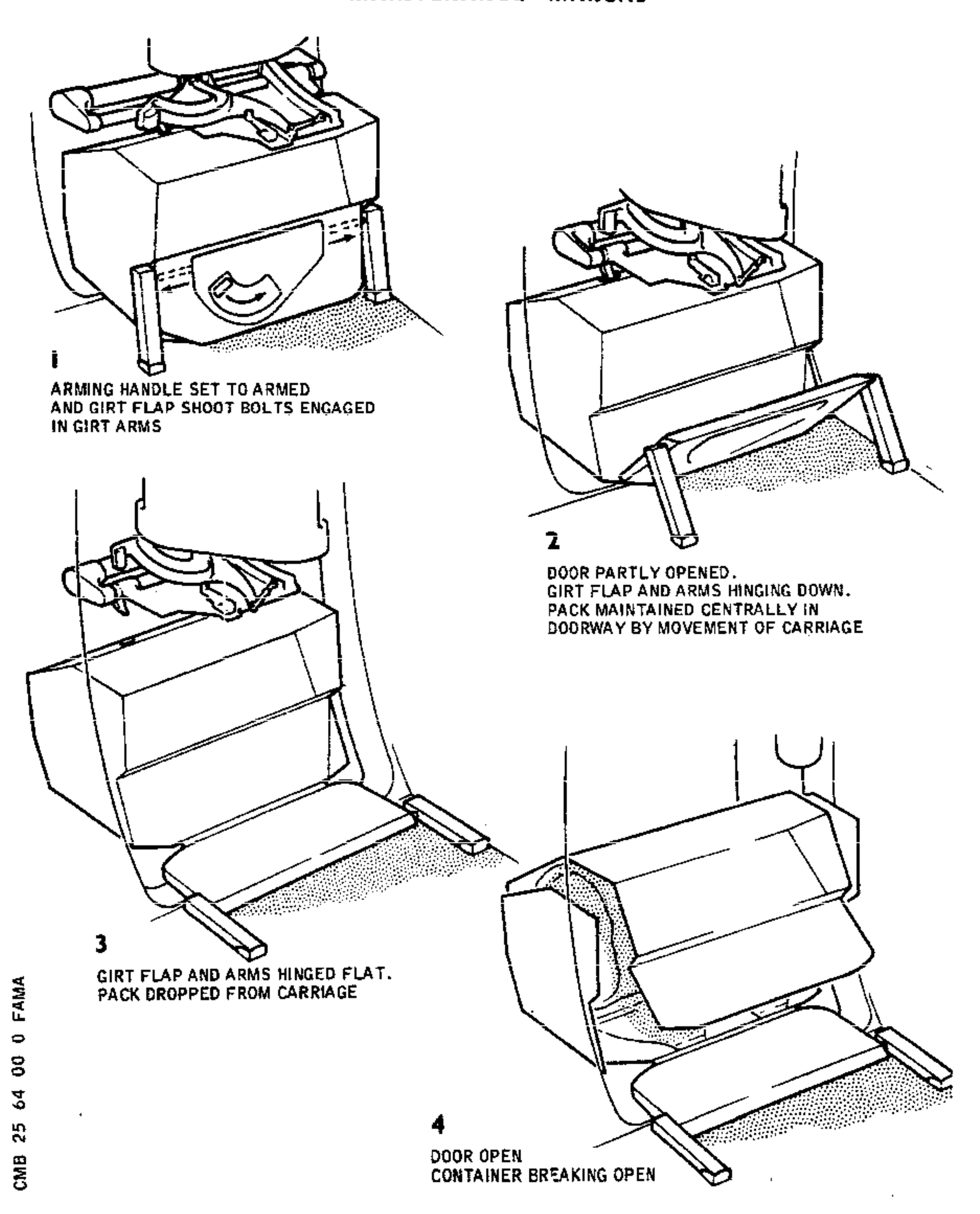
Disarming Mechanism
Figure 005

The slide or slide/raft will accept the first evacuee approximately 8 seconds after initiating inflation. The inflation time is less than 10 seconds.

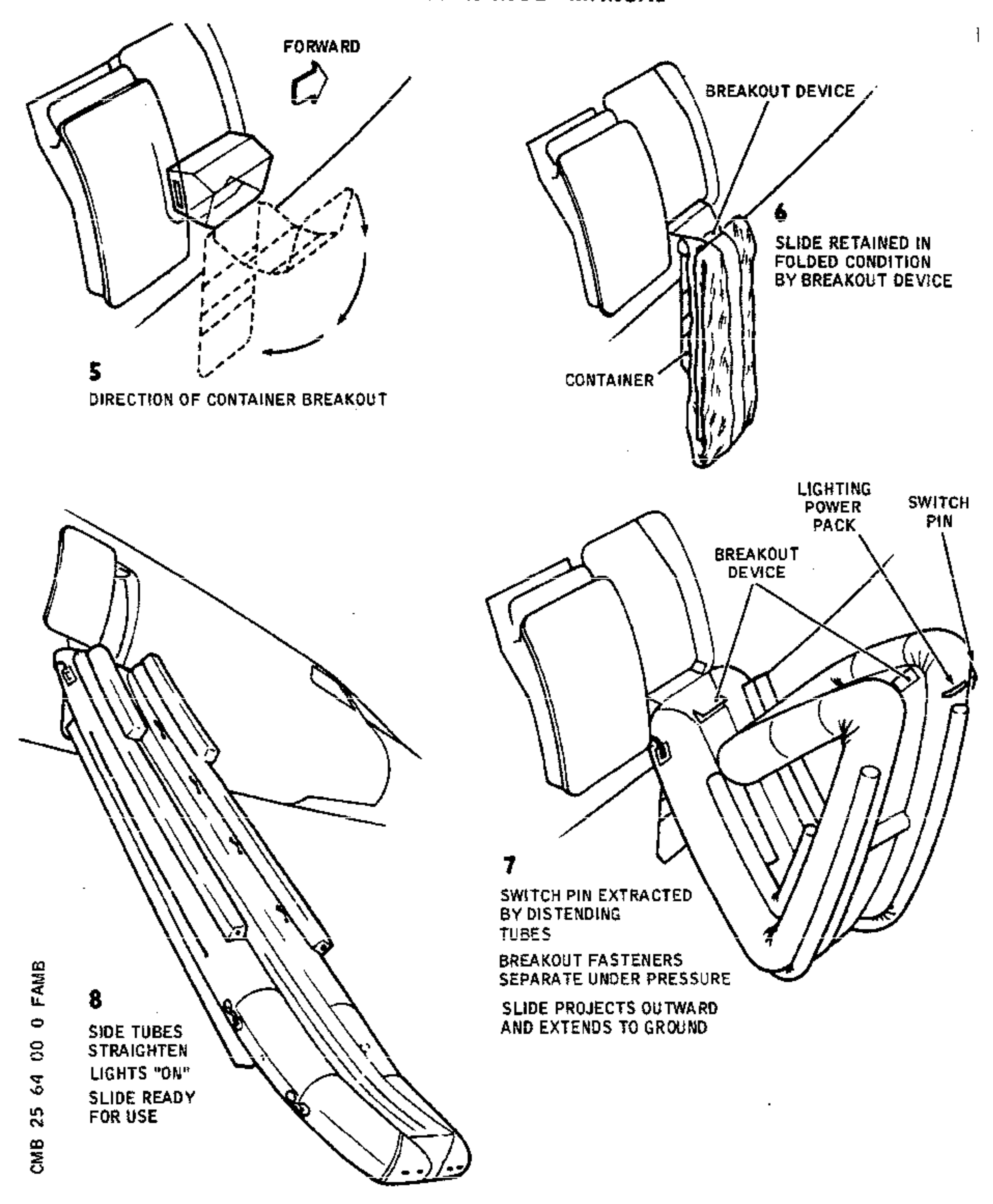
In the event of non-automatic inflation, the operator must grasp the red webbing handle attached to the right hand side of the door-sill apron and pull vigorously toward the centre aisle of aircraft. The pulling force will remove the firing cable from the cylinder operating valve and slide inflation will commence.

A slide or slide/raft is released from the aircraft doorway by pulling a disconnect handle of red webbing stowed beneath a flap marked with yellow diagonal stripes on the door sill apron. This releases a dutch lacing fastening and frees the slide or slide/raft from the container. The slide disconnect handle is secured in flap 'Velcro' fastening tape, so that flap and handle are grasped simultaneously. Thus, opening the flap and pulling the handle is reduced to a single operation.

When opening the door using the door outer handle the disarm button is first depressed to spring the handle out of its recess and to extend the trip bolt of the disarm mechanism. When the door is raised during the initial stages of door opening, the trip bolt engages the lift arm and rotates the torque tube of the disarm mechanism on the door surround structure. The torque tube striker depresses the shoot bolt and disengages it from the girt arm, returning the girt flap linkage to the disarmed setting. Both the disarm button and the trip bolt are reset as the door lifting movement is completed.



System Operation (Sheet 1 of 2)
Figure 006



System Operation (Sheet 2 of 2)
Figure 006

SLIDE/RAFT SYSTEM (FORWARD PASSENGER AND SERVICE DOORS) - ADJUSTMENT/TEST

1. General

A slide system is fitted to the forward service door and a slide/raft system to the forward passenger door. Both have integral inflation systems. The following procedures are for either door. Tests include operational tests of the system with and without deployment and inflation, and lighting pack checks.

2. Slide/Raft System Operational Test - Slide Inoperative (Without Inflation)

WARNING: DO NOT OPEN THE DOOR USING THE DOOR INNER HANDLE WHEN THE ARMING LEVER IS SET TO "ARMED" AS THIS WILL OPERATE THE SYSTEM AND RELEASE THE PACK.

A. Test

R CAUTION: ENSURE THAT THE GIRT ARMS ARE RETURNED TO THE
R VERTICAL POSITION - FAILURE TO DO SO MAY RESULT
R IN DAMAGE TO THE SLIDE/RAFT OPERATING MECHANISM.

(1) On the forward passenger door:

(a) Check that both girt arms are locked in the vertical position.

(b) Insert a finger into the slot for the shoot bolt in each arm and depress the locking lever to release the arm. Hinge the arm outboard and ensure that no obstruction or foreign matter prevents the arm pivotting fully down.

(c) Check that when released the arm automatically returns and locks in the vertical position.

On the forward service door:

(d) Test the forward girt arm as in (a), (b) and (c) above.

(e) Test the rear girt arm as in (a) and (b) above and check that the girt arm is retained in the lowered position by its ratchet and pawl. Release the pawl and return the arm to the vertical position.

(2) With the door closed and the arming handle on the girt flap set to DISARMED, check that the flap is securely latched to the container by the spring clip.

(3) Set the arming handle to "ARMED" and check that the shoot-bolts engage the girt arms easily.

(4) Check that when the door is opened using the door outer handle the disarming mechanism is effective:

(a) Depress the disarm button on the outer handle and check that the handle ejects from its stowage and the trip-bolt extends from the edge of the door.

(b) Turn the handle to lower the door flap and raise the door. As the door rises check that the trip bolt operates the disarming mechanism on the door surround structure to depress the shoot-bolt from the girt arm. The resultant movement of the linkage returns the girt flap arming lever to the "DISARMED" position.

(5) With the lever set to "DISARMED" and using the inner handle, open the door and check that the pack container is maintained centrally in the doorway by the carriage mechanism during the initial opening movement of the door. When closing the door from the fully open position check that the rollers on the main hinge engage smoothly in the guide channels of the carriage mechanism.

(6) With the lever still at "DISARMED" check the functioning of the pack release catch:

(a) Depress the catch manual release lever and lower the pack sufficiently to prove it is released from the catch.

R

R (b) Engage the pack in the catch pushing the container upward and outward to turn the cam
R catch and close it around the bobbin. Lightly
R press down on the latch and apply downward
R pressure on the main adjustment screw to lower
R the catch assembly sufficiently to permit the
R latch to engage and lock the cam catch.

R AFTER SB 25-083

R Check that the red lines on the indicator latch
R and the indicator body or catch body are aligned.

R

NOTE: If difficulty is encountered refer to the pack installation procedure given in 25-64-11, Removal/Installation.

(7) Set the arming lever to "ARMED", disengage the spring clip and open the door no more than 5 to 7 in (127 to 177 mm). Check that the girt flap and the girt arms are unlocked and are free to pivot.

CAUTION: DO NOT OPEN THE DOOR MORE THAN THE AMOUNT STATED AS THIS MAY PRECIPITATE THE PACK FROM THE DOOR.

(8) Disengage the ratchet on the aft girt arm and close the door to return the girt flap back against the container so that it locates on the latch and spigots. Re-engage the spring clip and set the arming lever to "DISARMED".

3. Slide/Raft System Operational Test - Slide Operative (With Inflation)

A. Test

(1) Ensure that the area beneath the door over which the slide or slide/raft will deploy is clear of objects that may damage the slide, and drape the area with protective sheeting.

(2) Ensure that the door with the pack to be tested is fully closed and secured.

(3) Remove the safety pin from the girt flap arming lever and move the lever to "ARMED".

WARNING: ONCE THE DOOR IS OPENED ALL SUBSEQUENT OPERATIONS ARE AUTOMATIC AND PERSONNEL MUST KEEP CLEAR OF THE SLIDE DURING DEPLOYMENT.

(4) Rotate the door inner handle to the open position and push the door open. Check that the slide or slide/raft deploys and inflates in approximately 10 seconds.

NOTE: If the slide fails to inflate automatically

pull the red webbing standby inflation handle on the right hand side of the door sill apron.

(5) Check that the slide or slide/raft has deployed satisfactorily, that all chambers are inflated and that the lights are illuminated.

(6) Remove the switch pin from the slide tie line and insert the pin in the end of the lighting power pack, on the outer side of the slide, to prevent the slide battery discharging.

4. Disarm Mechanism Operational Test

WARNING: DURING THIS TEST DO NOT ALLOW THE DOOR TO SWING OUTBOARD UNTIL THE ARMING LEVER ON THE SLIDE/RAFT CONTAINER GIRT FLAP HAS BEEN RETURNED TO "DISARMED".

NOTE: Two persons are required at the door to perform this test, one inside the fuselage and one outside.

A. Equipment and Materials

DESCRIPTION	PART NO.
Spring balance, compression type, graduated in 4 oz (113 g) steps, range 0 to 22 lbf (0 to 9.98 kgf)	-

B. Test

(1) With the door open and using the compression spring-balance, depress the disarm button on the door outer handle and check that:

(a) The load required to operate the disarm button, applied at the centre of the shaft, is between 15 and 20 lbf (8.6 and 9.1 kgf).

(b) The handle ejects from its stowage.

(c) The trip bolt extends from the door edge.

(2) Return the handle to the flush position.

(3) With the door closed and locked, remove the locking

pin from the slide/raft container girt flap arming lever and set the arming lever to ARMED.

(4) Depress the disarm button, then rotate the outer door handle and as the door rises check that the arming lever moves to DISARMED.

(5) Close the door, with either the inner or outer handle, then check that the disarm button has reset and is flush with the door outer skin profile.

5. Lighting Harness Test (Ref. Fig. 501)

A. General

An alkaline battery pack to power the slide or the slide/raft lighting system is integral with the container pack. The test jack for the battery pack is accessible via an inspection window in the top of the container and enables the test to be carried out without removing the pack from the door.

B. Equipment and Materials

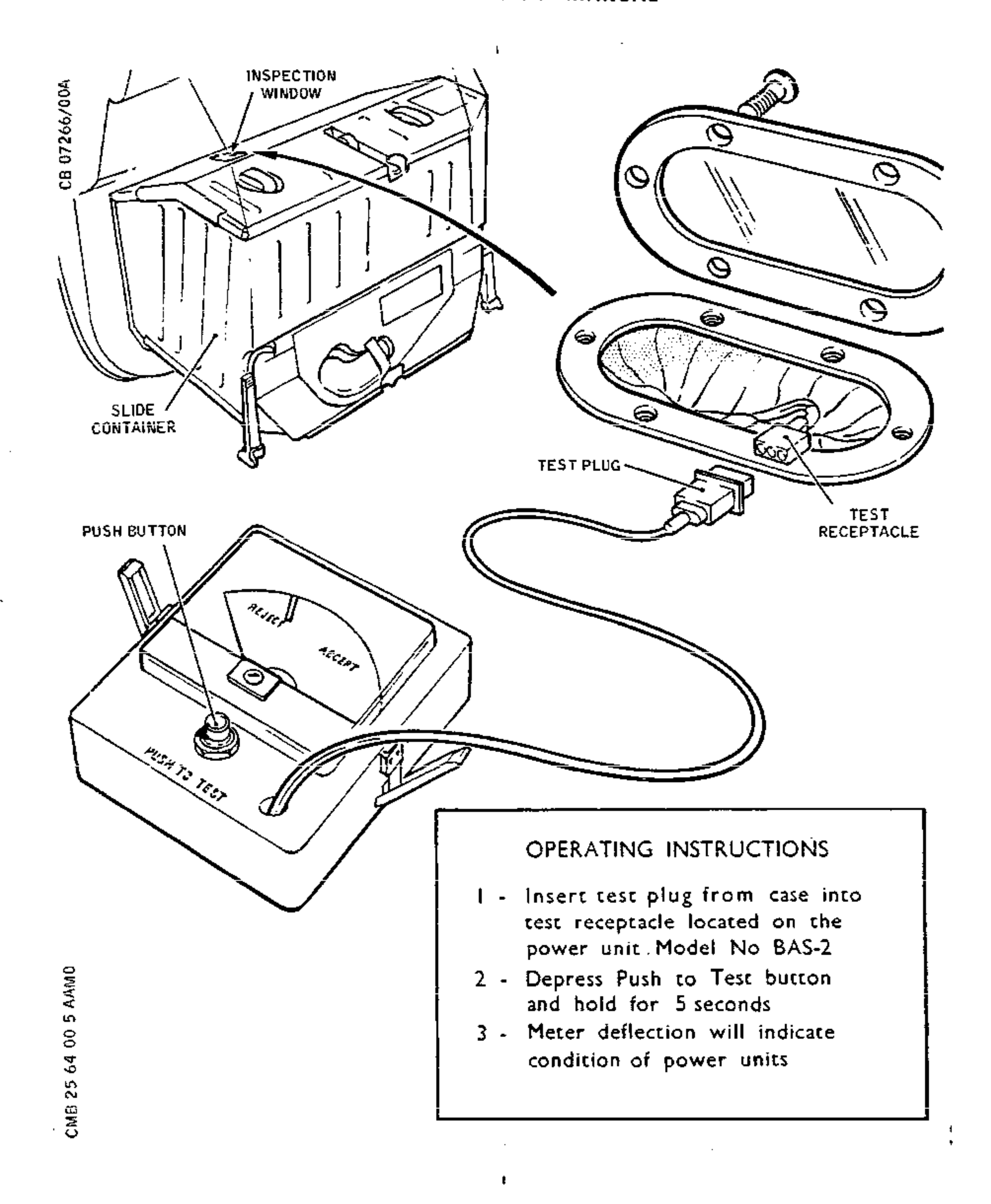
DESCRIPTION	PART NO.
Test set, lighting harness	TS.10 or RFD.B02706-009-7
or alternatively	
Avometer	-
RB TU-14	-

C. Test

(1) Ensure that the girt flap lever is set to DISARMED and is secured with the safety pin.

(2) Remove the inspection window on top face of container and retrieve the test jack flying lead.

(3) If using the test set connect it to the flying lead test receptacle. Test in accordance with the battery tester instructions. A reading below the red ACCEPT datum mark indicates that more than one lamp is inoperative or, that the power pack is not delivering the required current.



Lighting Harness - Testing
Figure 501

(4) Detailed below are the light harness test readings associated with each piece of test equipment and harness type.

	AVOMETER*	TU-14
Old Light Harness (Pt No.01298001)	0.562 Min.	0.460-0.560
New Light Harness (Pt No.P2-01-0035-078)	0.405 Min.	0.305-0.390

* If using the Avometer, connect its test leads to the appropriate terminals in the flying lead test receptacle, ensuring correct polarity, and check the current for 5 seconds.

NOTE: A new label is on packs to identify the new lamp harnesses and the appropriate ampere readings.

(5) At the conclusion of the test disconnect the test set, Avometer or TU-14, replace the test jack and refit the inspection window.

SLIDE/RAFT SYSTEM (FORWARD PASSENGER AND SERVICE DOORS) - INSPECTION/CHECK

1. General

The following inspection/checks are the same for each door.

2. Inspection/Check

R A. Equipment and Materials

DESCRIPTION	PART NO.
Aeroshell grease No.16 (Ref. 20-30-00, No.51)	-
Spring balance, compression type graduated in 4oz (113g) increments, range 0 to 22 lbf (0 to 10 kgf)	-

R B. Prepare to Inspect

WARNING: ENSURE THAT THE ARMING LEVER IS RETAINED AT "DISARMED" BY THE SAFETY PIN.
DO NOT OPEN THE DOOR USING THE DOOR INNER HANDLE WHEN THE ARMING LEVER ON THE GIRT FLAP IS AT "ARMED" AS THIS WILL OPERATE THE SYSTEM AND RELEASE THE PACK.

(1) With the arming lever on the girt flap retained by the safety pin, use the door inner handle to partially open the door.

(2) Raise the hinged flap above the container to provide access to the carriage mechanism.

R C. Inspect

(1) Inspect the pack container, girt flap, girt arms, disarming mechanism and carriage assembly for cleanliness, corrosion, distortion and damage.

(2) Ensure that the interference lever is not protruding through the girt flap thereby preventing the arming lever from being moved to ARMED.

NOTE: Protrusion of the interference lever denotes

incorrect assembly of the release push rod.

(3) Ensure that no foreign matter is present on the floor or bulkhead to prevent the girt arms from pivoting into their fully lowered position.

R D. Check

(1) Check all parts for security of attachment.

(2) Check that all moving parts move easily, are lubricated with Aeroshell grease No.16, and have no surplus deposits of grease to trap dust, grit or swarf.

R
R
CAUTION: DO NOT APPLY ANY FORM OF LUBRICANT TO THE DOOR DISARMING BUTTON MECHANISM.

(3) Check that the pack container is securely and firmly held by the pack support carriage.

(4) Check that the top of the container is not stuck to the support carriage by paint.

(5) Check that when the girt flap arming lever is at DISARMED the flap is securely latched to the container by its spring retaining clip.

(6) Check the arming and disarming feature:

(a) With the door closed, remove the locking pin from the girt flap arming lever.

(b) Move the lever to "ARMED" and ensure that the shoot bolts engage the girt arms.

R
R
R
R
(c) Press the disarm button, on the door exterior, to eject the door outer handle and trip bolt. Check that the pressure required to depress the button is within the range 15 to 20 lbf (8.6 to 9.1 kgf).

R (d) Rotate the door outer handle. Check that the shoot bolts disengage from the girt arms and the arming lever moves to DISARMED.

R (e) Close the door, and with the door outer handle flush in its recess, check that the disarm button has returned to its fully extended position, flush with the outer skin.

NOTE: It is important that the disarm button returns to the flush position.

(f) Refit the locking pin to the arming lever.

(7) Check latch lever settings (Ref. Fig.601).

(a) Slacken-off the main adjustment screw locknut and the main adjustment screw, then release the collapse-rod locknut and loosen its adjustment screw. Torque-tighten the main adjustment screw to 10 lbf in (0.113 mdaN) then torque-tighten the locknut to 80 lbf in (0.904 mdaN).

CAUTION: THE CONTAINER MUST BE HELD IN POSITION WHILE TIGHTENING THE ADJUSTMENT SCREW.

DO NOT OVERTORQUE THE MAIN ADJUSTMENT SCREW AS OVERTIGHTENING COULD JAM THE MECHANISM.

(b) Turn the adjustment screw of the collapse-rod until it just contacts the stop bracket, without end play. Continue for one complete turn, to ensure that the rod is seated at its lower end. Then with the adjustment screw held firmly, tighten the locknut. Recheck the setting.

NOTE: It is important that the lower end of the collapse-rod is clear of dirt and grease etc., before carrying out the check at para. 7.(b).

(c) Ensure that the red lines on the indicator latch and the indicator body or catch body are aligned, that the release rod is seated upon its nylon guide blocks. Then check the gap (dimension A) between the adjustment
R screw and the latch lever is between 0.105 and 0.135 in
R (2.66 and 3.43 mm) on the forward passenger door and
between 0.175 and 0.205 in (4.44 and 5.20 mm) on the forward service door. Secure the adjustment screw locknut. Recheck the setting.

(8) If settings at para. 7(b) and (c) are incorrect proceed as follows:

(a) Release the collapse-rod locknut and loosen the adjustment screw.

(b) Ensure that the release rod is clear of the latch lever.

(c) Reset the main adjustment screw and the collapse-rod Ref. para. 7(a) and (b).

(d) With the release rod firmly down on its blocks and the latch lever fully down, set the release rod adjustment screw to give a clearance, as detailed in para. 7(c). Secure the adjustment screw with the locknut and recheck the setting.

(9) Check the inflation bottle pressure (Ref. para. 3).

3. Inflation Bottle Pressure Check (Ref. Fig.602)

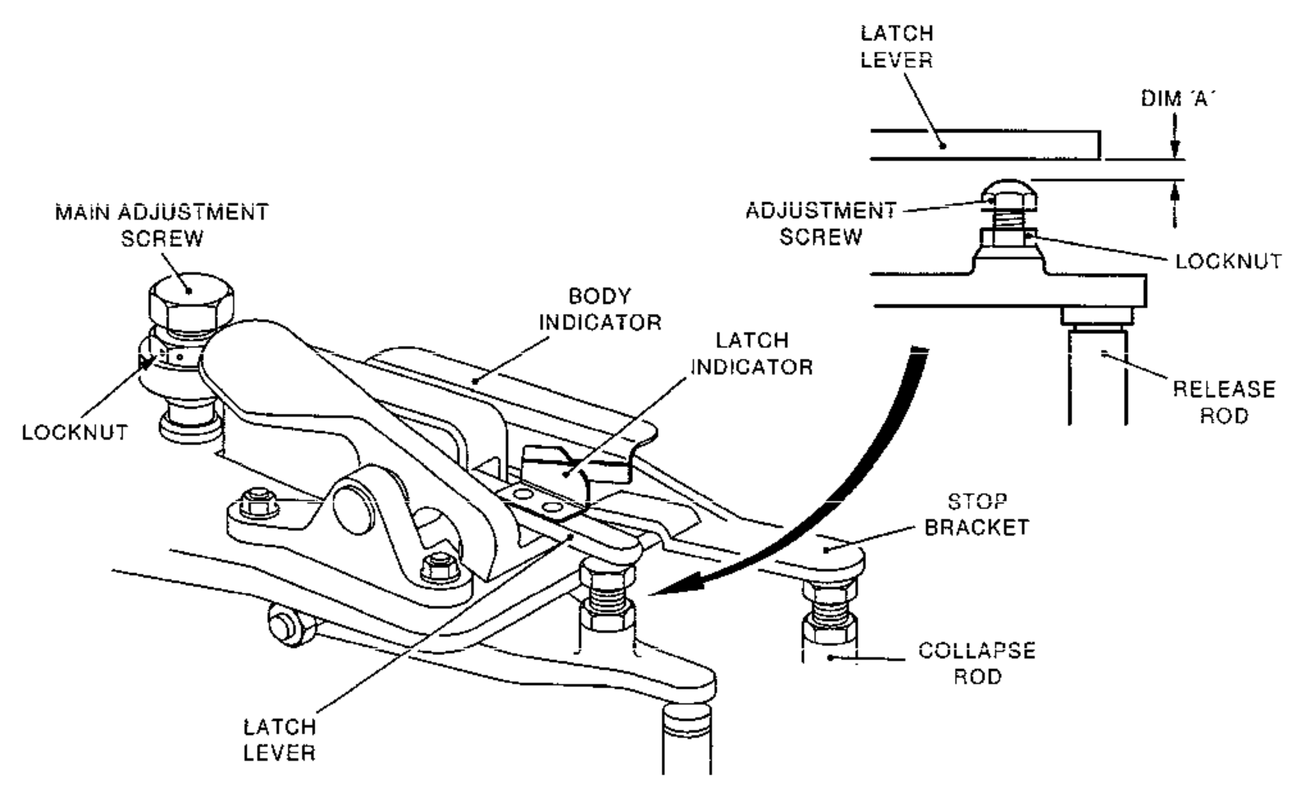
WARNING: THE INFLATION BOTTLE IN THE PACK MUST NOT BE RECHARGED OR TOPPED UP IN THE AIRCRAFT.

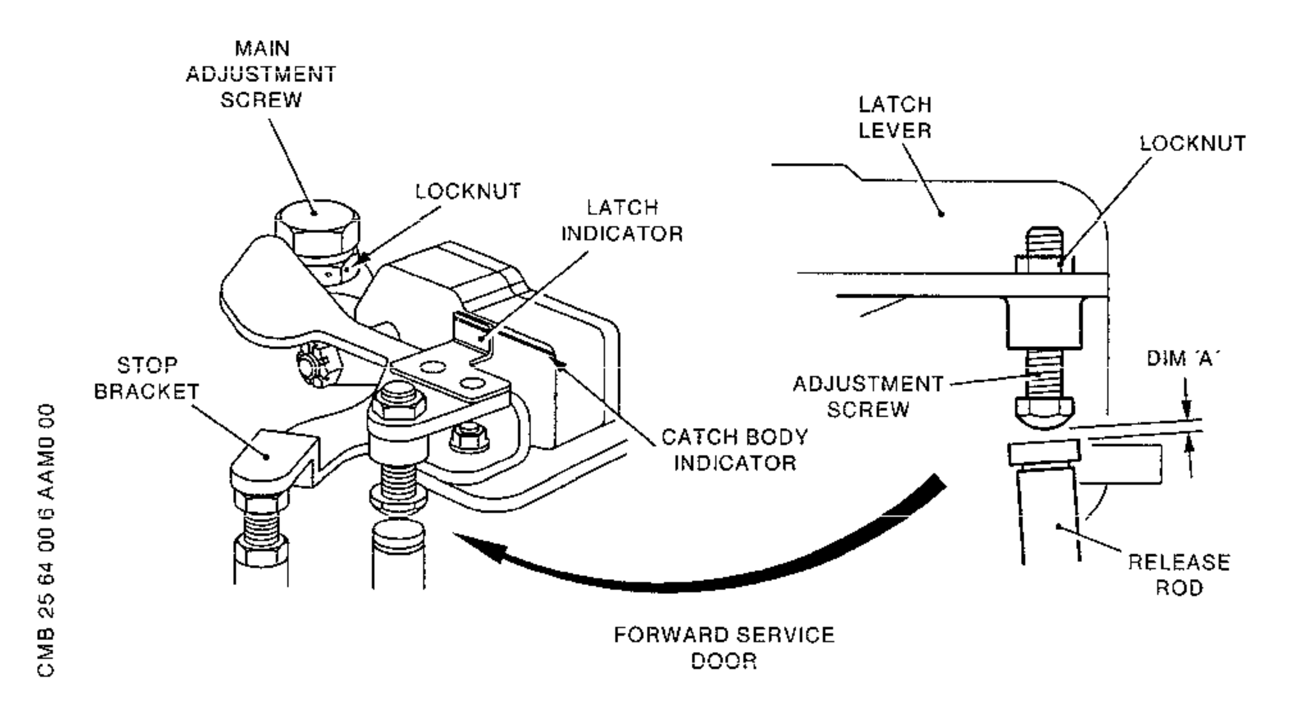
A. Check

(1) Ensure that the girt flap lever is retained at DISARMED by the safety pin.

(2) Raise the hinged console flap above the container and, if necessary, open the door slightly to bring the inspection window in the top of the container into view.

(3) Check that the inflation bottle pressure gauge, viewed through the inspection window, shows a reading, in accordance with the temperature/pressure chart.

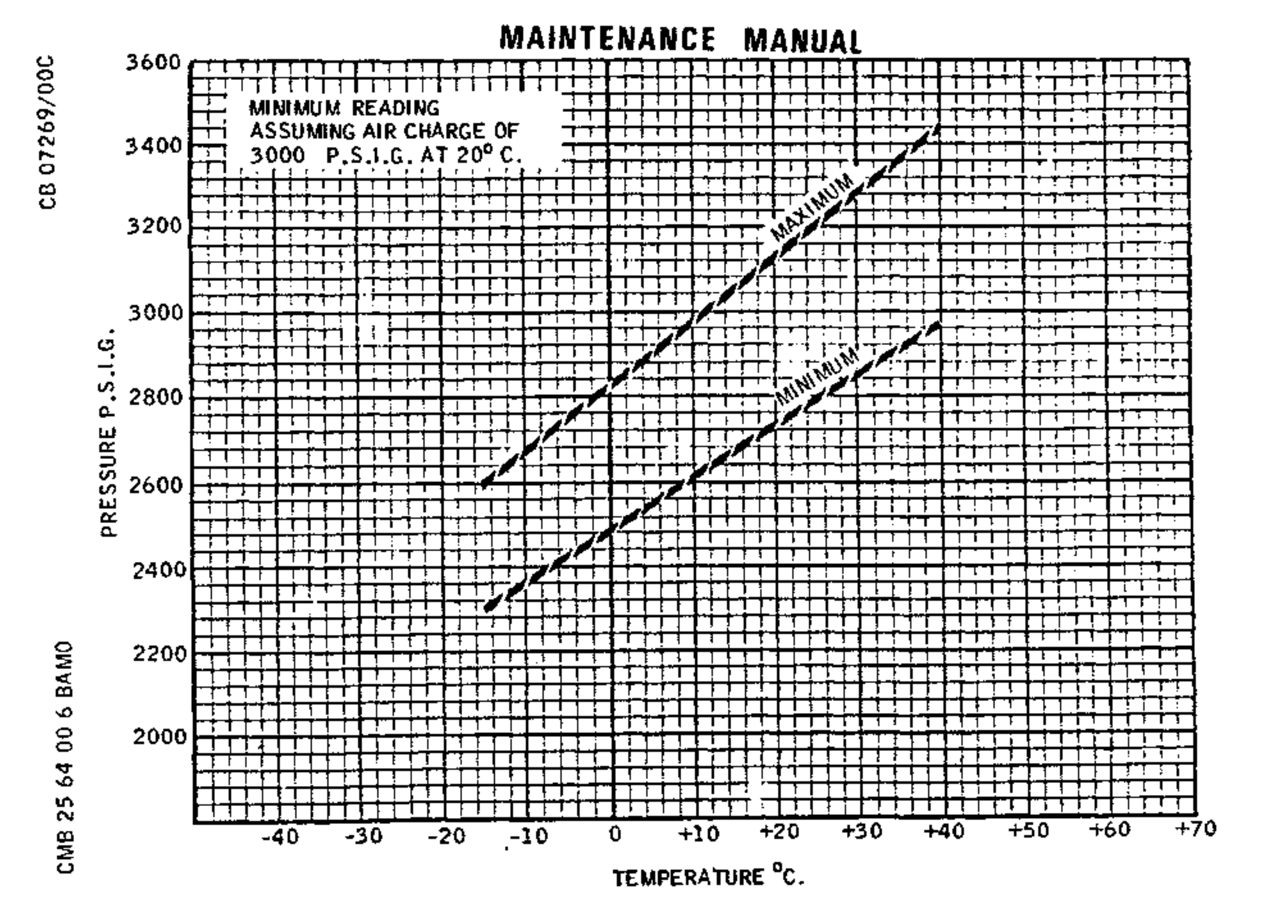




PRINTED IN ENGLAND

R

Latch Lever Setting
Figure 601



Temperature/Pressure Chart
Figure 602

SLIDE AND SLIDE/RAFT PACKS - REMOVAL/INSTALLATION

1. General

A slide/raft pack is fitted to the forward passenger door and a slide pack to the forward service door. Each pack comprises the slide or slide/raft complete and its collapsible container with girt flap. The container is secured by a catch to the carriage mechanism on its door. The inflation bottles are integral with both packs. The pack may be removed either while contained on the door or following the operation of the system with the slide deployed and inflated.

2. Pack (Passenger or Service Door)

A. Equipment and Materials

DESCRIPTION	PART NO.
Safety pin, arming lever	-
Locking wire, non-corrodible steel 0.028 in (0.7 mm) dia	-

B. Remove Contained Pack (Ref. Fig. 401)

(1) Fully close the door.

(2) Move the arming lever on the girt flap to "DISARMED" and insert the safety pin.

(3) Fold up the console flap on the door to gain access to the carriage mechanism. Manually support the pack and release the pack container from the cam catch by depressing the release lever.

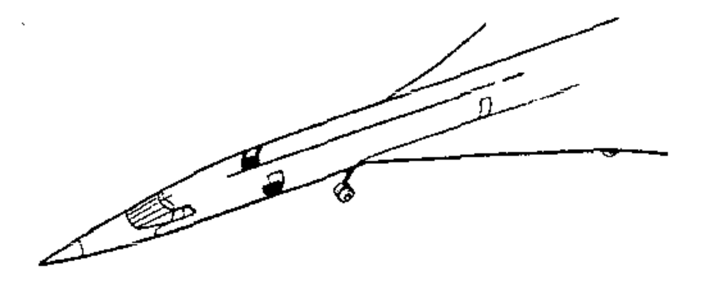
CAUTION: DO NOT ALLOW THE PUSH RODS IN THE TOP OF THE CONTAINER TO LIFT AS THIS MAY RESULT IN THE RELEASE AND INFLATION OF THE PACK.

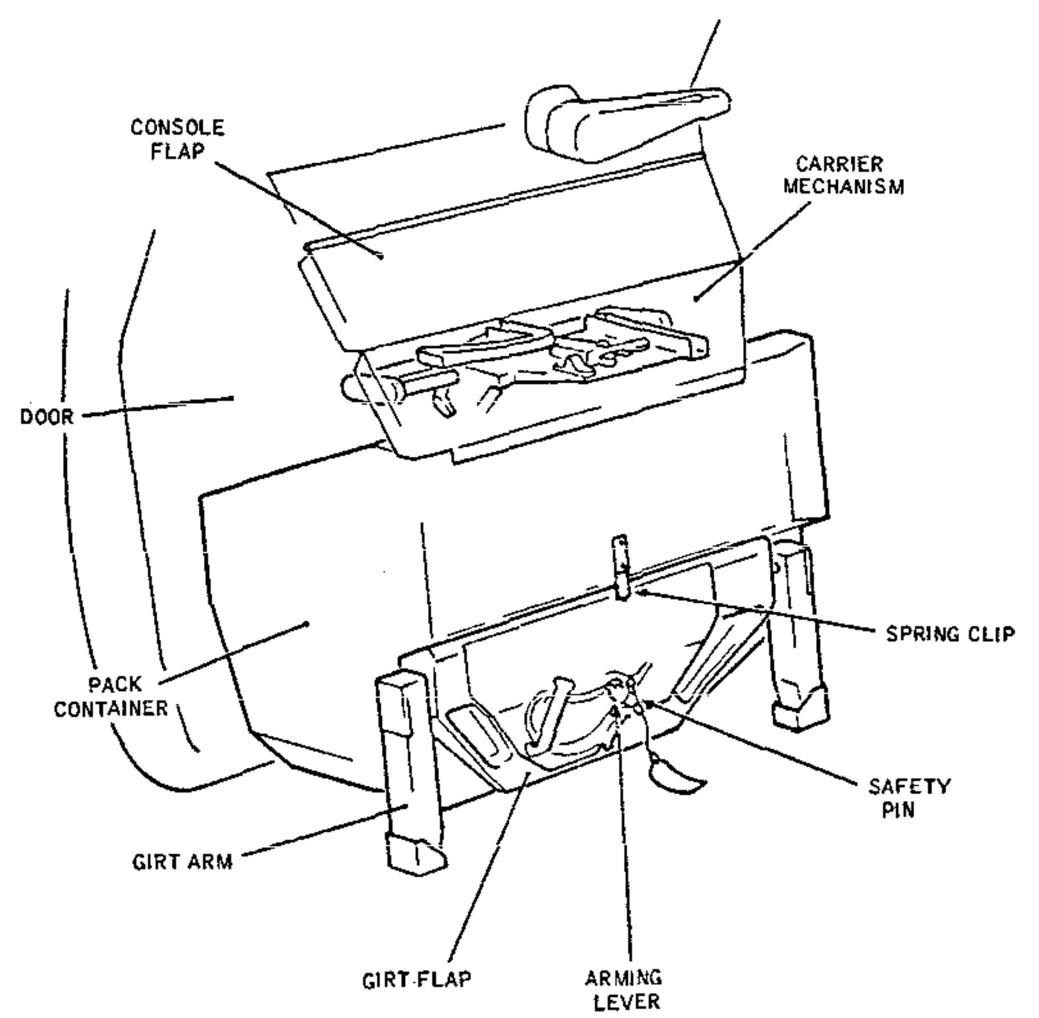
(4) Lower the pack to the floor and restrain the push rods
R with suitably placed self adhesive tape.

(5) Remove the pack from the aircraft.

C. Install Pack (Ref. Fig. 401)

CBO 4497/00B

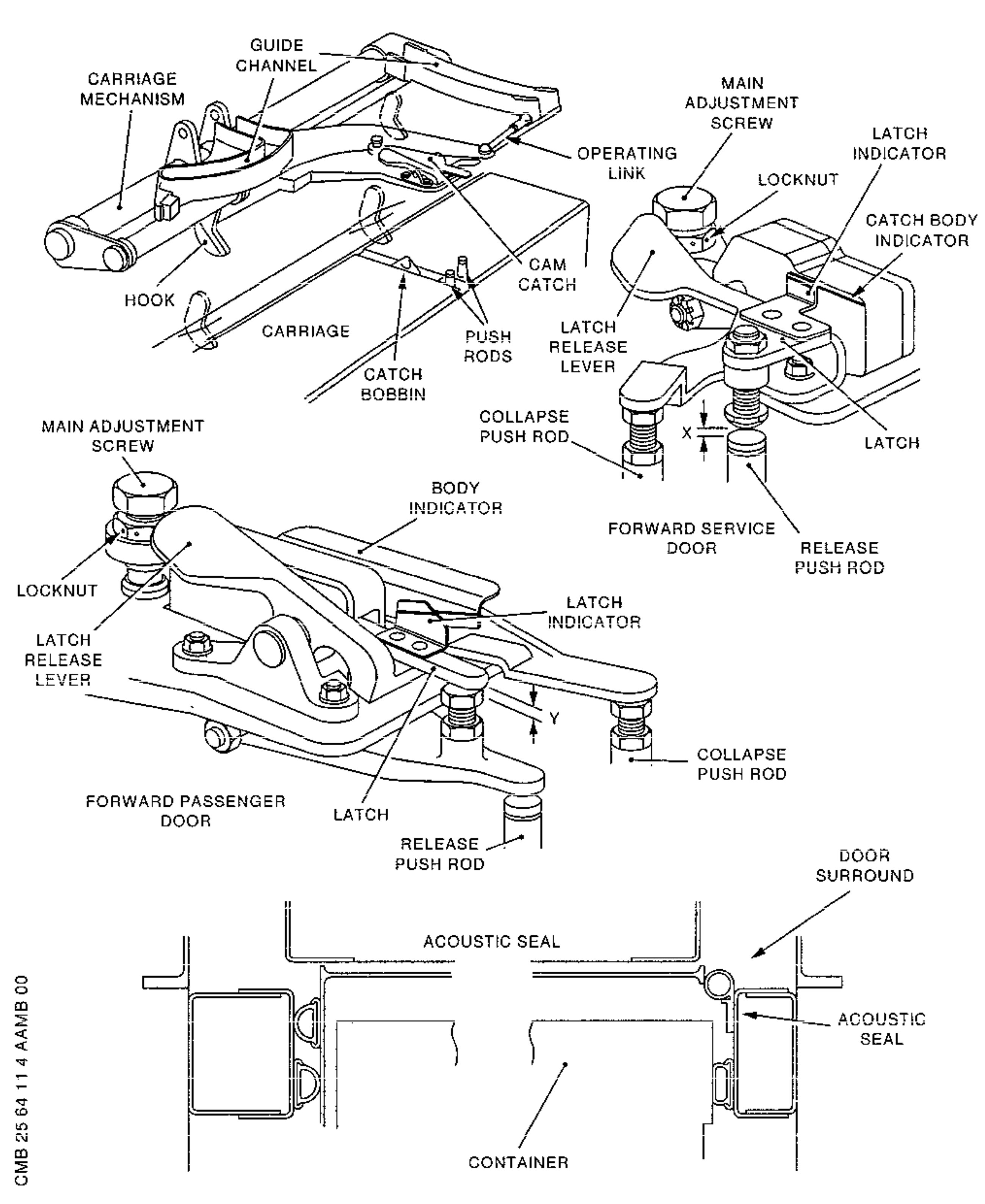




CMB 25 64 11 4 AAMA

Slide/Raft Contained Pack - Installation
(Sheet 1 of 2)
Figure 401

R



Slide/Raft Contained Pack - Installation
(Sheet 2 of 2)
R Figure 401

CAUTION: IF EITHER OF THE ADJOINING AREAS OF THE CONTAINER OR CARRIAGE MECHANISM HAVE RECENTLY BEEN PAINTED, ENSURE THAT THE PAINT IS THOROUGHLY DRY BEFORE FITTING THE CONTAINER TO THE CARRIAGE. DO NOT ATTEMPT TO PAINT THESE AREAS WITH THE CONTAINER 'IN-SITU'. WET PAINT WILL CAUSE ADHESION OF THE CONTAINER AND CARRIAGE MECHANISM, PREVENTING RELEASE OF THE CONTAINER.

NOTE: The door to which the pack is to be fitted must be fully equipped, rigged and furnished (Ref. 52-11-11).

(1) Before installing the pack in the aircraft check that:

(a) The arming handle on the pack girt flap is at "DISARMED" and is secured with the safety pin.

(b) The girt flap is secured flat against the container with the spring clip. If it is not, remove the safety pin from the arming lever and move the lever to "ARMED".
Push the flap back against the container and reset the arming lever to "DISARMED", the flap should then be locked to the container. Fit the safety pin.

(c) Prior to installing the pack it is essential to ensure that the container lock catch and plate are correctly assembled (Ref. Fig. 401A). If the foot is not engaged the container release rod can be raised sufficiently to permit rotation of the foot so that it may be correctly located in the locking plate.

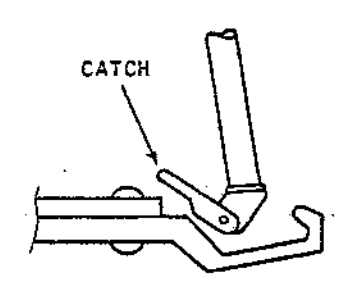
(2) If the girt arms are lowered, raise them to the vertical position. Check that they automatically lock in this position.

(3) Remove the inside acoustic seal between the pack and the door surround furnishing by sliding it out of its retainer.

(4) Lift and fold up the console flap on the door to gain access to the carriage mechanism, and -

(a) Set the cam catch and latch (forward passenger door) or the cam catch and latch release lever (forward service door) in the locked position.

R



RELEASE ROD

LOCKING PLATE

INCORRECT

CORRECT

CIC 0099/00A

Slide Container Lock Catch Assembly
Figure 401A

B

(b) Unscrew the main adjustment screw above the catch to its limit.

(c) Depress the latch release lever to release the cam catch and turn the catch to the open position.

(5) Remove the tape restraining the push rods ensuring there is no upward movement of the rods.

(6) Screw-in the adjustment screw for each push rod to its limit.

(7) Fit the pack to the carriage.

(a) With the door closed, raise the pack and engage the two hooks on the carriage in the hook blocks in the top panel of the container.

(b) Keeping the hooks engaged, lift the inboard face of the container and engage the catch bobbin in the cam catch, and the spigot on the underside of the carriage in the slot in the top of the container.

(c) Push the container upward and outward to turn the cam catch and close it round the bobbin. Lightly press down on the latch and apply downward pressure on the main adjustment screw to lower the catch assembly sufficiently to permit the latch to engage and lock the cam catch.

R AFTER SB 25-083

R Check that the red lines on the indicator latch
R and the indicator body or catch body are
R aligned.

R

(8) Adjust the carriage mechanism:

(a) Lightly screw down the main adjustment screw while gently easing the container upward so that it fits snugly and firmly with no play or slackness beneath the carriage. Torque-tighten the screw to 10 lbf in (0.113 mdaN) and lock the screw with the locknut, torque-tightened to 80 lbf in (0.90 mdaN). Secure the locknut with wire to the catch body.

CAUTION: THE CONTAINER MUST BE MANUALLY HELD IN POSITION WHILE TORQUE-TIGHTENING THE ADJUSTMENT SCREW. ON NO ACCOUNT MUST THE CONTAINER BE LEVERED INTO POSITION AS THIS MAY DISTORT AND DAMAGE IT.

(b) Carefully open the doors and check the action of the two rollers beneath the main hinge arm that run in the guide channels. During the hinge movement check that there is no tendency for the rollers to jam. Ensure that when closing the door the rollers enter the guide channels easily. If necessary, disconnect and adjust the operating link to give the balance of adjustment required to achieve the two conditions. Reconnect the link and tighten the locknut, if fitted.

(9) Open the door and fit the inside acoustic seal by sliding it back in its retainer on the door surround furnishing. Close the door and check the function of the seal. Also check that the gap between the container and the door surround furnishing is not less than 0.40 in (10.16 mm). If necessary, adjust the door surround furnishing to give the required gap (Ref. 52-11-11, Removal/Installation).

(10) Adjust the push rods.

(a) Adjust the screw of the container collapse push rod (upward) until it just contacts the abutment bracket on the carriage. Continue to screw for one complete turn to ensure that the rod is seated at its lower end, then secure the screw with the locknut.

(b) With the release push rod firmly down on its blocks and the latch lever fully down, set its adjustment screw to give a clearance with the latch on the forward
R passenger door (Dimension Y) of between 0.105 and
R 0.135 in (2.66 and 3.43 mm) and on the forward service door (Dimension X) of between 0.175 and 0.205 in (4.44 and 5.20 mm), and secure it with the locknut.

(11) Fully close the door and set the arming lever on the girt flap to "ARMED". Check that:

(a) The entry of the shoot bolts into the holes in the girt arm is unimpeded. No adjustment should be necessary to meet this condition, but if adjustment is required the thickness of girt arm stop shims is to be altered (Ref. 25-64-13, Removal/Installation) to give the correct inboard/outboard position of the girt arms.

(b) The gap between each shoot bolt and the bottom of the hole in the girt arm is not less than 0.06 in (1.52 mm). If adjustment is necessary alter the thickness of packing beneath the girt arm floor fitting (Ref. 25-64-13).

(12) Check the operation of the disarming mechanism.

(a) Close the door.

(b) Set the arming lever on the girt flap to "ARMED".

(c) Pull out and rotate the door external handle and check that the arming lever moves to "DISARMED".

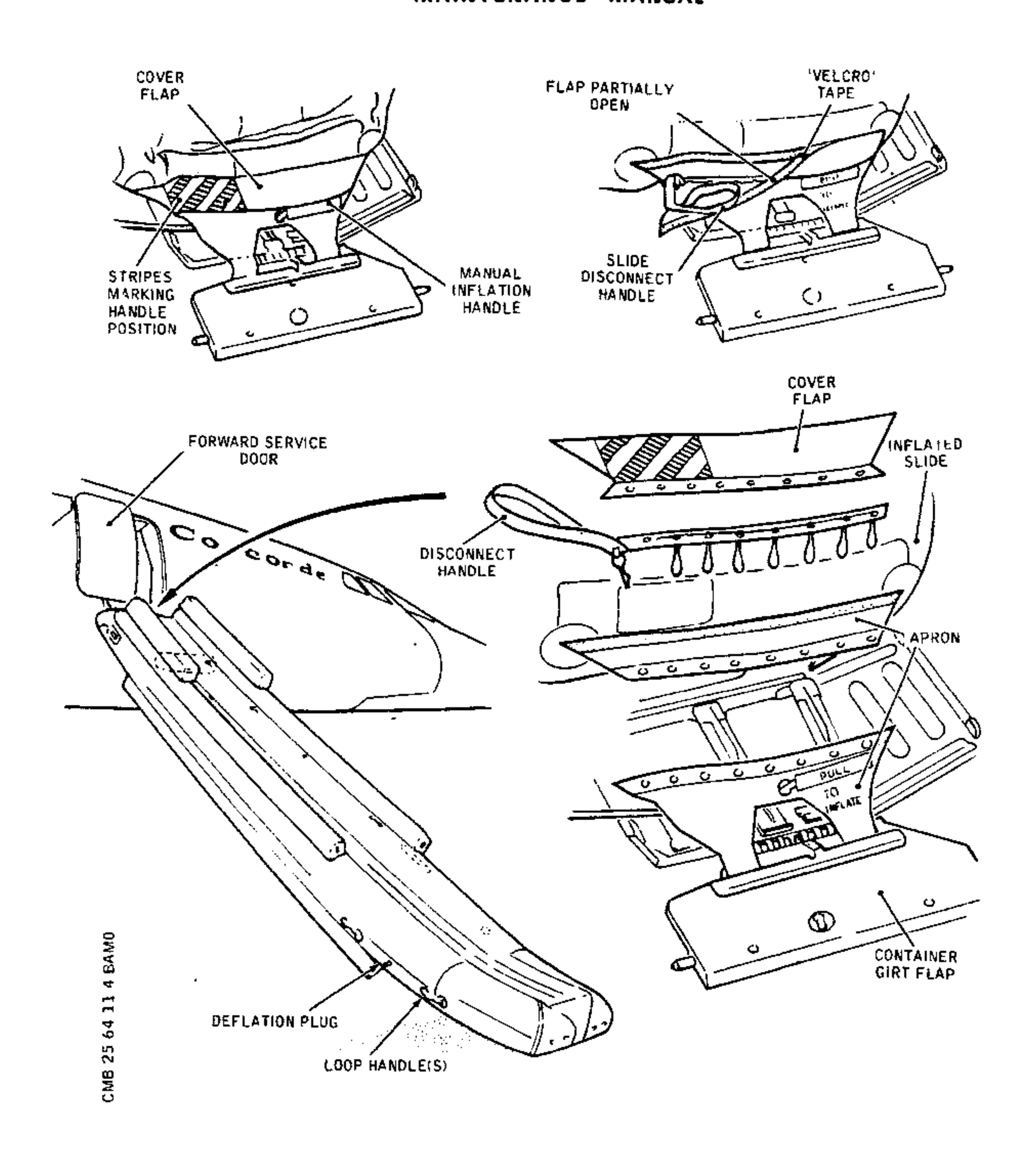
(d) Reset the door external handle.

(e) Secure the arming lever at "DISARMED" with the safety pin.

CAUTION: DO NOT LET THE DOOR SWING OPEN DURING THIS CHECK, IF THE DISARMING MECHANISM FAILED TO OPERATE THE PACK WOULD BE RELEASED.

NOTE: If the disarming mechanism fails to operate satisfactorily refer to 25-64-12, Adjustment/Test, for adjustment procedure.

(13) Lower the door console flap and check that all door furnishing and seals are fitted.



R

Slide (Deployed) - Disconnection
Figure 402

D. Remove the Deployed Pack (Ref. Fig. 402)

(1) Deflate the slide by operating the deflation plug.

(2) Release the slide from the aircraft.

(a) Ensure that there is no equipment or object beneath the slide that may damage it when lowered from the doorway.

(b) Lift the flap on the slide door sill apron where marked with diagonal yellow stripes to reveal the slide disconnect handle.

(c) Pull the disconnect handle in an upward direction to release the lacing that fastens the slide to the container and lower the slide to the ground.

(3) Free the container from the girt arms by retracting the shoot bolts.

(4) Lower the container to the ground.

(5) Return the girt arms to the vertical position.

DISARMING MECHANISM - REMOVAL/INSTALLATION

1. General

The forward passenger and the forward service doors each have a disarming mechanism that prevents the slide/raft or slide system from operating when the door is opened using the door external handle. The mechanism is similar for both doors and comprises two separate assemblies: one in the door (Ref. 52-11-11) and the other on the door surround structure which is dealt with by this procedure.

2. Disarming Mechanism

A. Equipment and Materials

DESCRIPTION	PART NO.
Aeroshell grease No. 16 (Ref. 20-30-00, No. 51)	-
Torque spanner range 0-50 lbf in (0-056 mdaN)	-
R Viton sealant PR1720X (Ref. 20-30-00, No. 371)	-

B. Removal (Ref. Fig. 401)

WARNING: DO NOT OPEN THE DOOR USING THE DOOR INNER HANDLE WHEN THE ARMING LEVER ON THE GIRT FLAP IS IN THE ARMED POSITION AS THIS WILL OPERATE THE SYSTEM
R AND RELEASE THE PACK. FIRST ENSURE THAT THE LEVER IS IN THE DISARMED POSITION.

(1) Remove the furnishing trim at the side of the door as necessary to permit access to the disarming mechanism.

(2) Remove the shear pin securing the torque tube to its return spring assembly; lift and remove the spring assembly from the support bracket.

(3) Remove the two bolts securing the outboard end of the torque tube and remove the lift arm and torque tube and, on the forward service door only, the spacer fitted between them.

(4) Remove the slotted nut securing the flanged spigot and remove the spigot and spacer.

(5) Remove the three bolts securing the attachment bracket and remove the bracket and stop pad.

(6) Remove the four bolts securing the bearing bracket and remove the bracket.

C. Install (Ref. Fig. 401)

NOTE: Assemble all moving parts with Aeroshell grease No. 16.

Assemble static parts using Viton sealant as instructed in 20-22-12.

(1) Locate the bearing bracket on the mounting angles so that the bearing is nearer the door and secure it with the four bolts torque tightened to between 40 and 45 lbf in (0.45 and 0.51 mdaN).

(2) Fit the attachment bracket to the door surround frame with the two hexagonal head bolts and nuts and with the countersunk head bolt and stop pad. Do not fit shims beneath the stop pad at this stage. Torque tighten the two nuts to between 12 and 15 lbf in (0.135 and 0.17 mdaN).

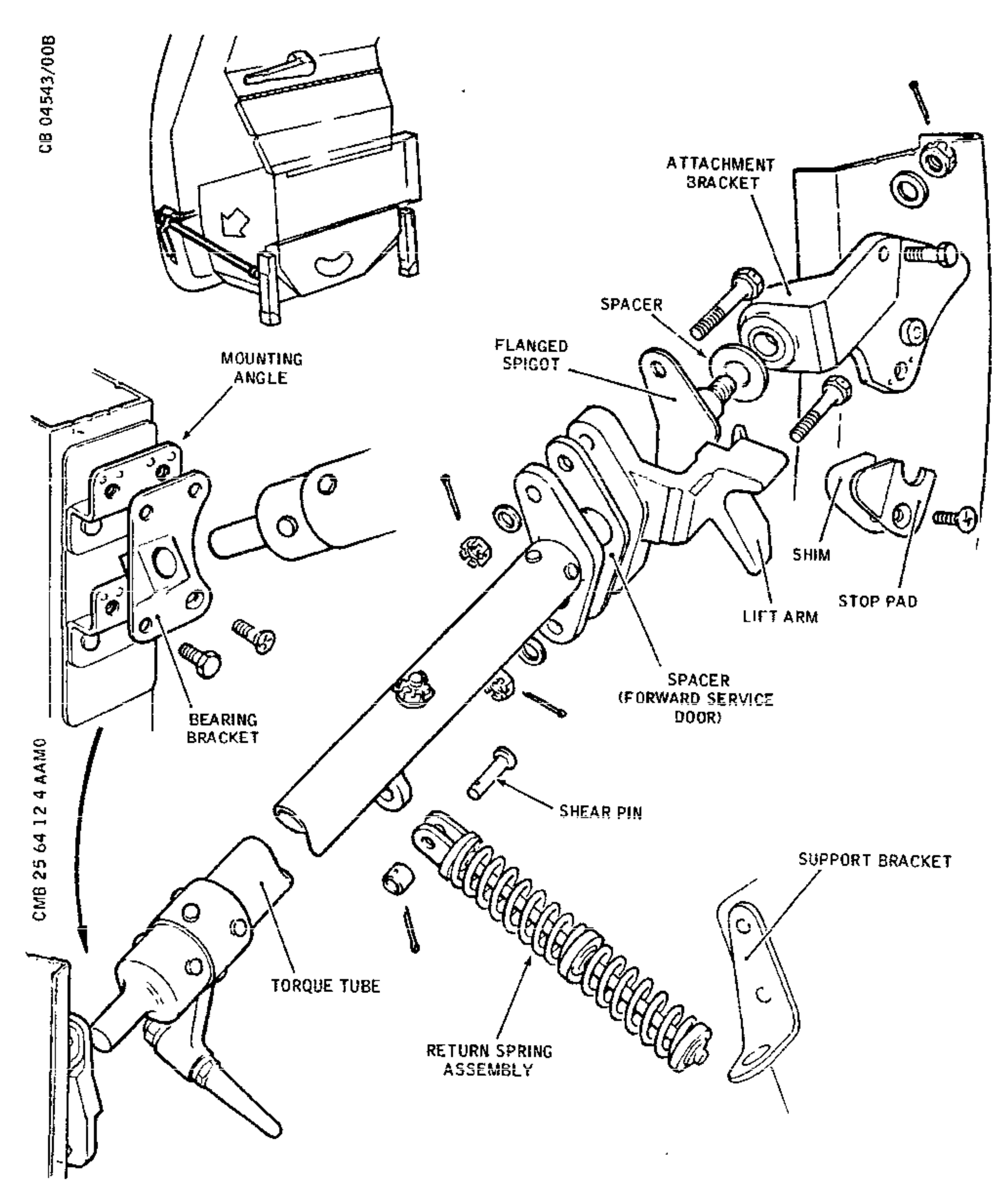
(3) Fit the flanged spigot together with the spacer to the attachment bracket and secure it with the washer and slotted nut. Torque tighten the nut between 25 and 30 lbf in (0.28 and 0.34 mdaN) and secure it with a split pin.

(4) Insert the torque tube in the bearing bracket and bolt the outboard end together with the lift arm and, on the forward service door only, the spacer to the flanged spigot with two bolts, washers and nuts. Torque tighten each nut to between 25 and 30 lbf in (0.28 and 0.34 mdaN) and secure them with split pins.

(5) Locate the spring assembly in the support bracket and secure the fork-end to the torque tube with the shear pin, washer, collar and split pin.

(6) Check and adjust the disarming mechanism (Ref. Fig. 402).

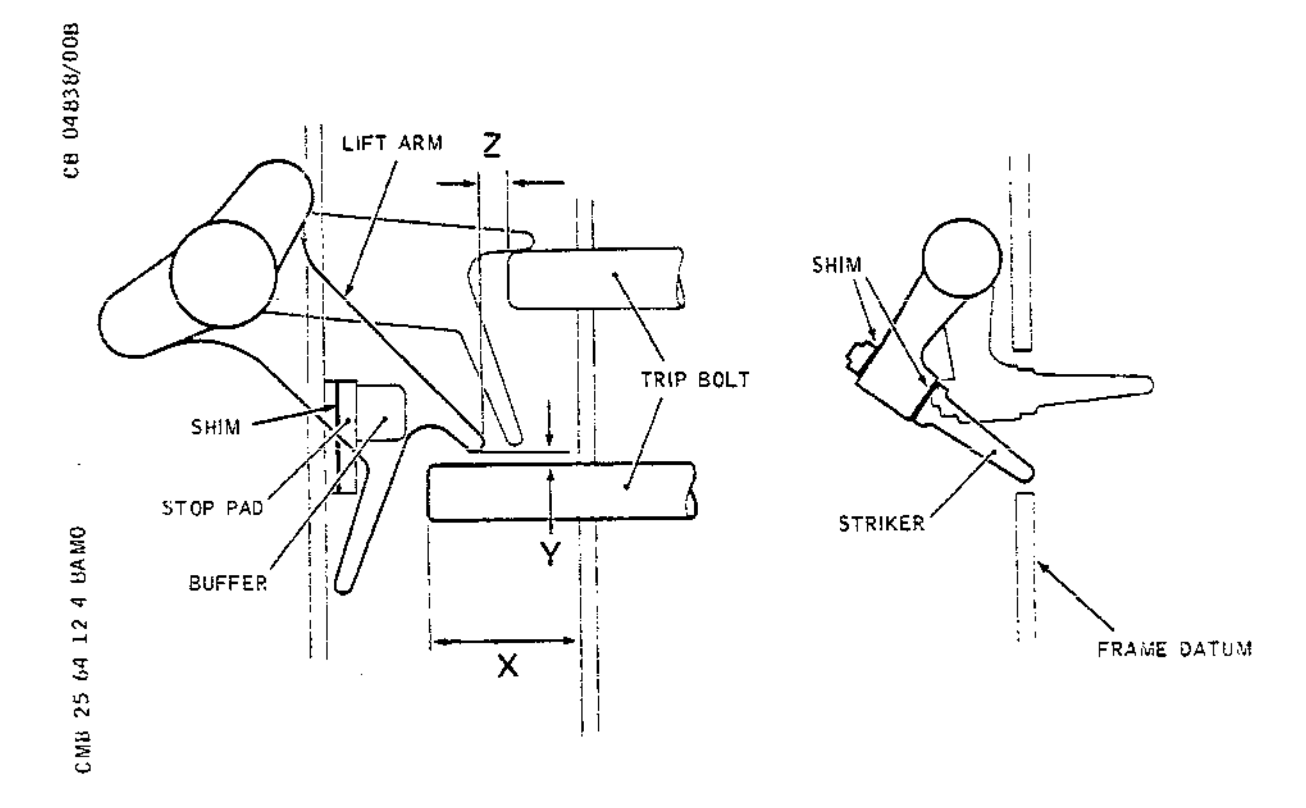
(a) With the door closed, depress the disarm button on the door outer handle to eject the handle from



Disarming Mechanism - Installation
Figure 401

its seating and to extend the trip bolt from the door. Check that the trip bolt protrudes from the door (dimension 'X') between 1.29 and 1.31 in (32.8 and 33.3 mm). If necessary, adjust the length of the trip bolt as detailed in 52-11-11, Removal/Installation.

(b) With the trip bolt extended and the lift arm resting on its stop pad, check that the clearance between the trip bolt and lift arm (dimension 'Y') is between 0.050 and 0.15 in (1.27 and 3.81 mm). If necessary, remove the stop pad and



R Adjustments
Figure 402

adjust the thickness of shims to obtain the required clearance. A maximum of three shims may be used.

(c) Open the door using the door outer handle and check that the lift arm resets the trip bolt to the retracted position and that the disarm button on the door outer handle resets flush with

the skin.

(d) With the door open, depress the disarm button to fully extend the trip bolt. Close the door and check that the trip bolt is reset to the retracted position by the lift arm and that the disarm button resets flush with the skin.

(e) Open and close the door using the door inner handle and check that the clearance between the retracted trip bolt and the lift arm (dimension 'Z') is between 0.20 and 0.25 in (5.08 and 6.35 mm). The clearance should be automatic, but if necessary adjust the trip bolt length within the required tolerances.

(f) With the lift arm resting on the stop-pad (door lowered position) check that the tip of the striker is flush with the datum face of the frame. If necessary, achieve this setting by transferring shims from one side of the striker arm to the other. Total shim thickness must not exceed 0.12 in (3.0 mm). Torque tighten the striker nut to between 12 and 15 lbf in (0.135 and 0.17 mdaN) and secure with a split-pin.

(g) With the door closed and the arming lever set to DISARMED, operate the door outer handle to lift the door. Check that as the door rises, the trip bolt engages the lift arm and rotates the torque tube and striker. Check that the striker moves the lever within the girt arm fully to the inside edge of the girt arm. Then as the striker returns to its position, flush with the bulkhead, the girt arm lever returns to its original position.

(h) Repeat operation (g) several times to ensure satisfactory operation.

(i) With the door closed set the arming lever on the girt flap to ARMED so that the shoot bolts engage the girt arms.

(j) Operate the door outer handle to lift the door and check that the arming lever has moved to DISARMED.

(7) Refit the furnishing trim.

GIRT ARMS AND FLOOR FITTINGS (FORWARD DOORS) - REMOVAL/INSTALLATION

1. General

Two girt arms are fitted in each doorway. Each arm pivots on a floor fitting and is locked in the vertical position by a spring-loaded locking lever. The arm may be released by depressing the lever with a finger inserted in the shoot bolt hole; the arm can then be hinged outward. The service door rear girt arm is fitted with a ratchet, which, when the arm is lowered, retains it in this position until manually released. The remaining arms are fitted with a spring return assembly connected to the pivot shaft to spring-load the arm to the vertical position.

2. Girt Arms and Floor Fitting (Ref. Fig.401 and 402)

A. Equipment and Materials.

DESCRIPTION	PART NO.
Torque spanner, 0 to 70 lbf in (0 to 0.79 mdaN) range	-
Aeroshell grease No.16 (Ref. 20-30-00, No.51)	-

B. Removal

(1) Remove the shear pin securing the lever of the return spring assembly to the pivot shaft.

(2) Remove the bolt securing the girt arm to its pivot shaft.

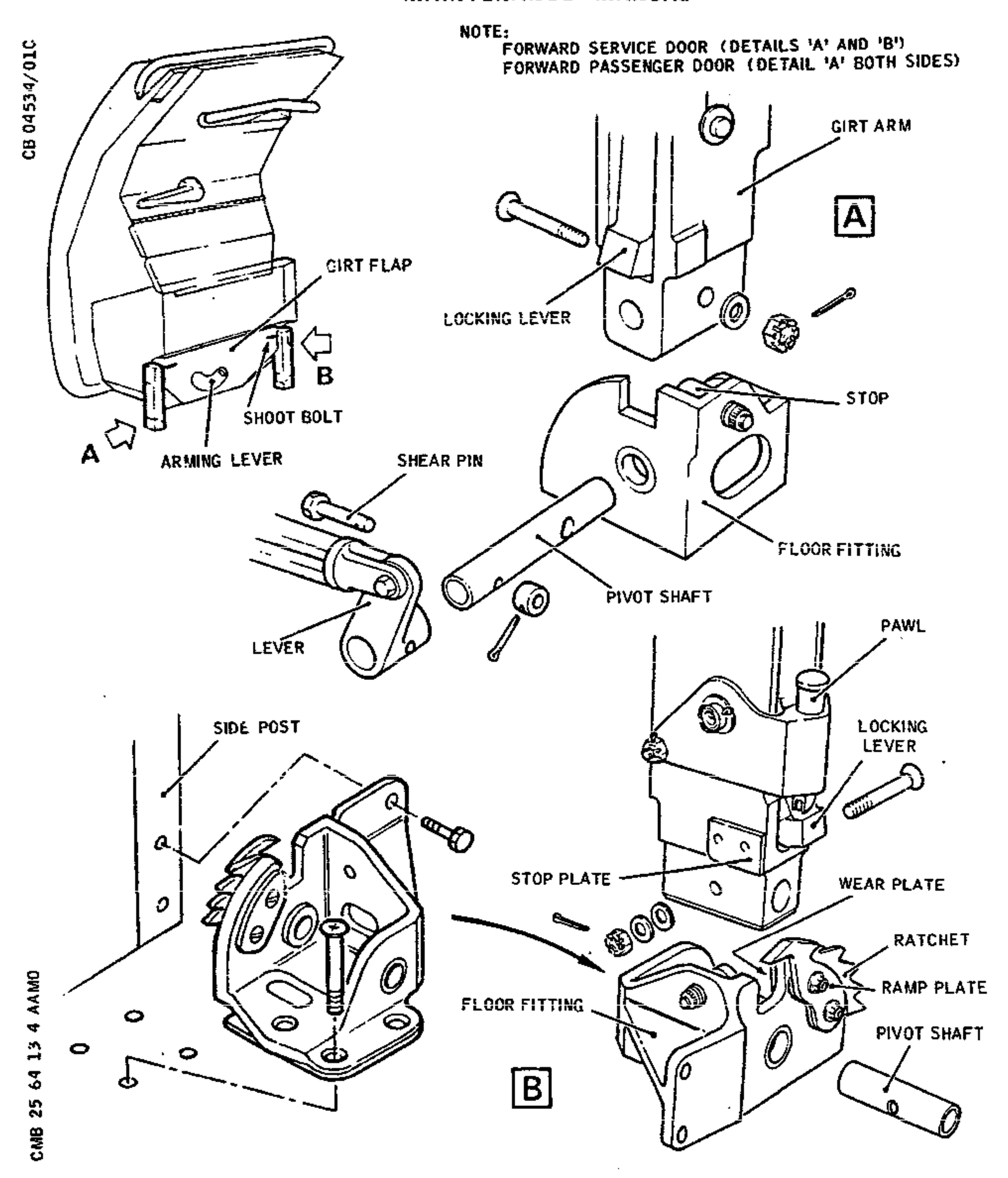
(3) Withdraw the pivot shaft and remove the girt arm.

(4) Remove the girt arm floor fitting:

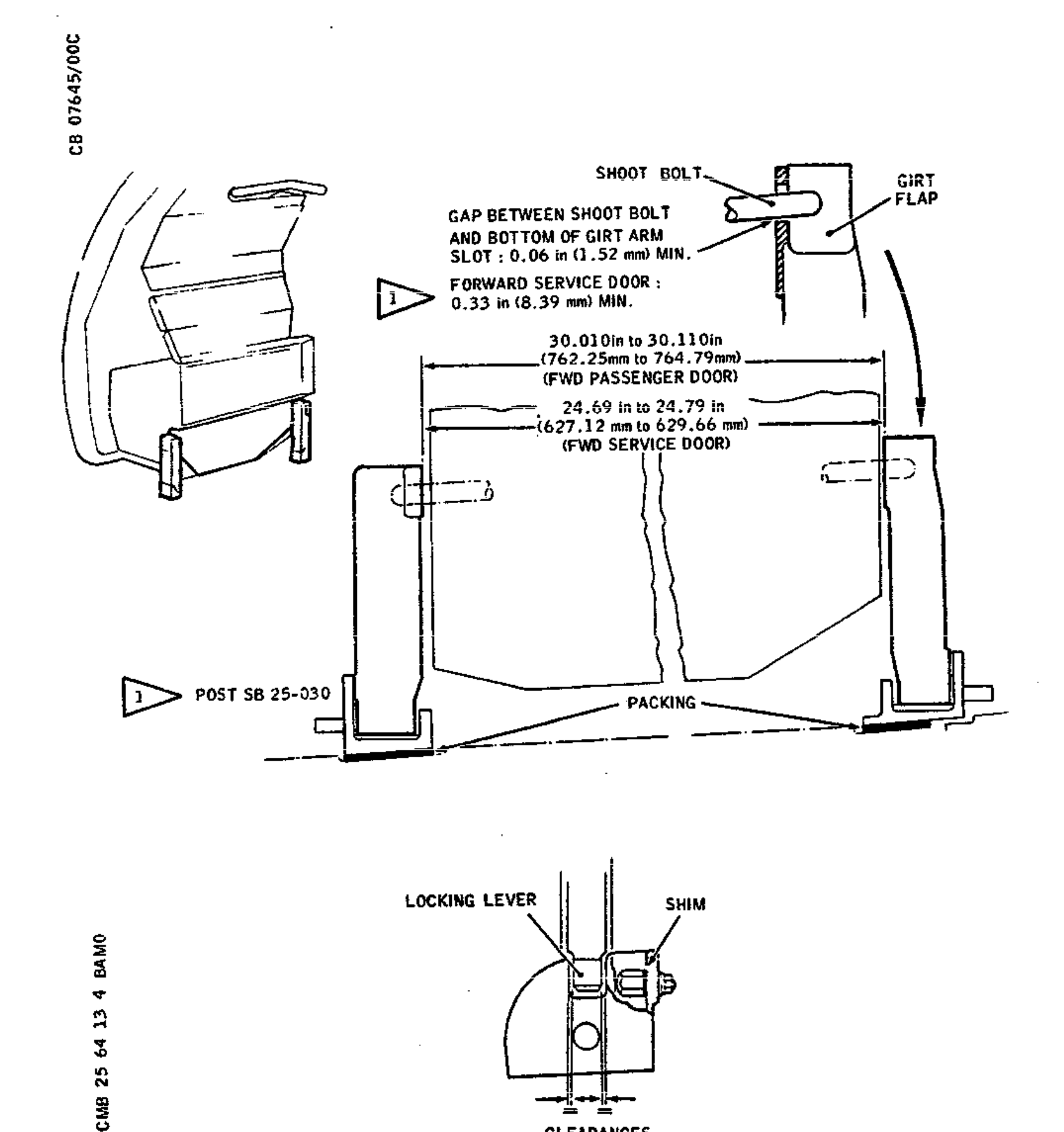
NOTE: Where differing lengths of bolts are fitted note their positions for reassembly.

(a) Remove the countersink head bolts securing the fitting to the floor panel.

(b) Remove the bolts securing the fitting to the



Girt Arms and Floor Fittings (Forward Doors)
- Installation
Figure 401



R Girt Arms and Floor Fittings - Adjustments
Figure 402

R inboard post (service door aft girt arm only).

(c) Remove the fitting.

C. Installation

NOTE: Assemble all moving parts with Aeroshell grease No. 16.

(1) Install the girt arm floor fitting:

(a) Clean off the old sealant from the mating surfaces of floor panel and fitting.

(b) Ensure that the slider block inserts are in place in the floor panel.

(c) Wet assemble the floor fitting to the floor panel with Viton sealant (Ref. 20-22-12).

R (d) Secure the fitting with countersunk head bolts
R to the floor panel and, where applicable, with
R bolts to the inboard post. Torque-tighten each
R bolt to between 35 and 44 lbf in (0.4 and 0.5
R mdaN).

(2) Fit the girt arm to the floor fitting with the pivot shaft and secure the arm to the shaft with the bolt, washer and nut. Torque-tighten the nut to between 12 and 15 lbf in (0.14 and 0.17 mdaN) and secure it with a split pin.

(3) Secure the return spring assembly lever to the pivot shaft with the shearing pin, collar and split pin.

(4) Check and, if necessary, adjust the position of the girt arm:

(a) Fully close the door and set the arming lever on the girt flap to ARMED and check the alignment of the shoot bolt with the slotted hole in the girt arm. The girt arm must be positioned by its stop to give unimpeded entry to the shoot bolts. If necessary, adjust the stop by fitting shims, up to a maximum of 0.10 in (2.5 mm) thickness. Torque-tighten the stop nut to between 60 and 70 lbf in (0.68 and 0.79 mdaN).

(b) Check that there is a minimum gap of 0.06 in (1.52 mm) between the shoot bolt and the bottom

of the slotted hole.

After SB 25-030 For A/C 001-007,

(b) On the forward service door, check that there is a minimum gap of 0.33 in (8.382 mm) between the shoot bolt and the bottom of the slotted hole in the girt arm.

(c) Check that the distance between the girt arms on a line with the shoot bolts is in accordance with the measurement shown on the illustration (Ref. Fig. 402). Adjustment may be made by tapering the packing beneath the girt arm floor fitting. The protective treatment (epoxy resin) must be restored to the tapered section
R and the packings wet assembled to 20-22-14.

WARNING: DO NOT OPEN THE DOOR USING THE INNER HANDLE WHEN THE GIRT FLAP ARMING HANDLE IS SET TO THE ARMED POSITION OR THE SLIDE SYSTEM WILL OPERATE.

(d) Open and close the door several times, moving the arming lever to ARMED each time the door is closed and back to DISARMED each time the door is opened, and check that the shoot bolts move easily in and out of the girt arm slots. Check that each time the shoot bolts are withdrawn, the lock lever in the girt arm engages in the recess in the floor fitting, and that there is an equal clearance between the sides of the lever and the recess. If necessary, make further adjustment of the girt arm stop to meet these conditions.

(e) Insert a finger in the hole for the shoot bolt in the girt arm and depress the locking lever. Check that the girt arm is free to hinge outward.

(f) Check that when the service door rear girt arm is pivoted down it is retained in this position by the ratchet and the pawl.

END OF THIS SECTION

NEXT

SLIDE/RAFT (INTERMEDIATE PASSENGER AND SERVICE DOORS) - DESCRIPTION AND OPERATION

1. General (Ref. Fig. 001)

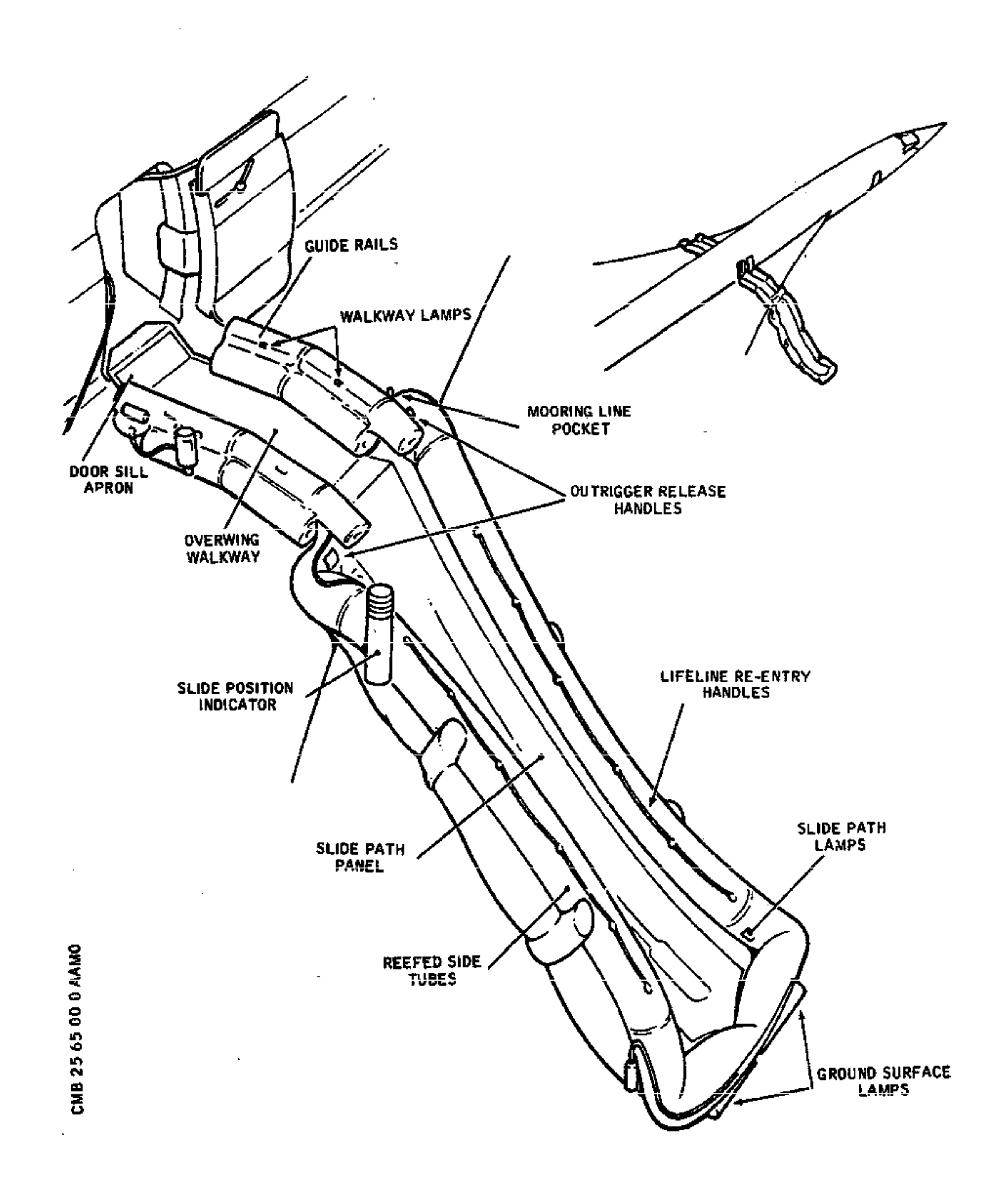
An inflatable slide/raft system by which passengers and crew can evacuate the aircraft during an emergency, is incorporated in the intermediate passenger and service doors. When either system is armed the system is operated by opening the respective door from the inside using the door inner handle. This releases the slide/raft through the doorway to self-inflate and self-deploy over the wing leading edge. If the door is opened using the door outer handle the system is automatically disarmed. In a forced sea landing quick-release facilities at the door enable the slide/raft to be used as a raft. Each system comprises the slide/raft pack, the girt flap and arms, and the carriage, disarming and inflation bottle firing mechanism.

2. Slide/Raft Pack (Ref. Fig.002 and 003)

The pack comprises a slide/raft and walk-way assembly deflated, folded and stowed in a container. The container is made up of hinged panels and a girt flap, and is secured to the door by a catch and two steadying hooks on the door carriage mechanism that engage a bobbin and two slots respectively in the container. On the inboard panel of the container are two push rods that form part of the catch release mechanism. One is the release rod that trips the latch to free the container from the door. The other is the collapse rod that permits the container to open after release. A coil spring fitted to the release rod prevents accidental operation by vibration or 'G' forces.

When the container is released it breaks open and a ram assembly, fitted to its side and operated by air from the slide/raft inflation system, projects the container and pack through the open doorway irrespective of the aircraft attitude.

The slide/raft (Ref. Fig. 001) fabricated mainly of neoprene proofed nylon fabric, comprises an inflatable tubular structure supporting an anti-static slide path and raft floor area, an overwing walkway with guide rails, flexible air delivery hoses and aspirator valves and electrical lighting systems. A door sill apron, by which the slide/raft is secured to the container, has the quick-release pull for releasing the slide/raft from the door.



R

Slide/Raft System
Figure 001

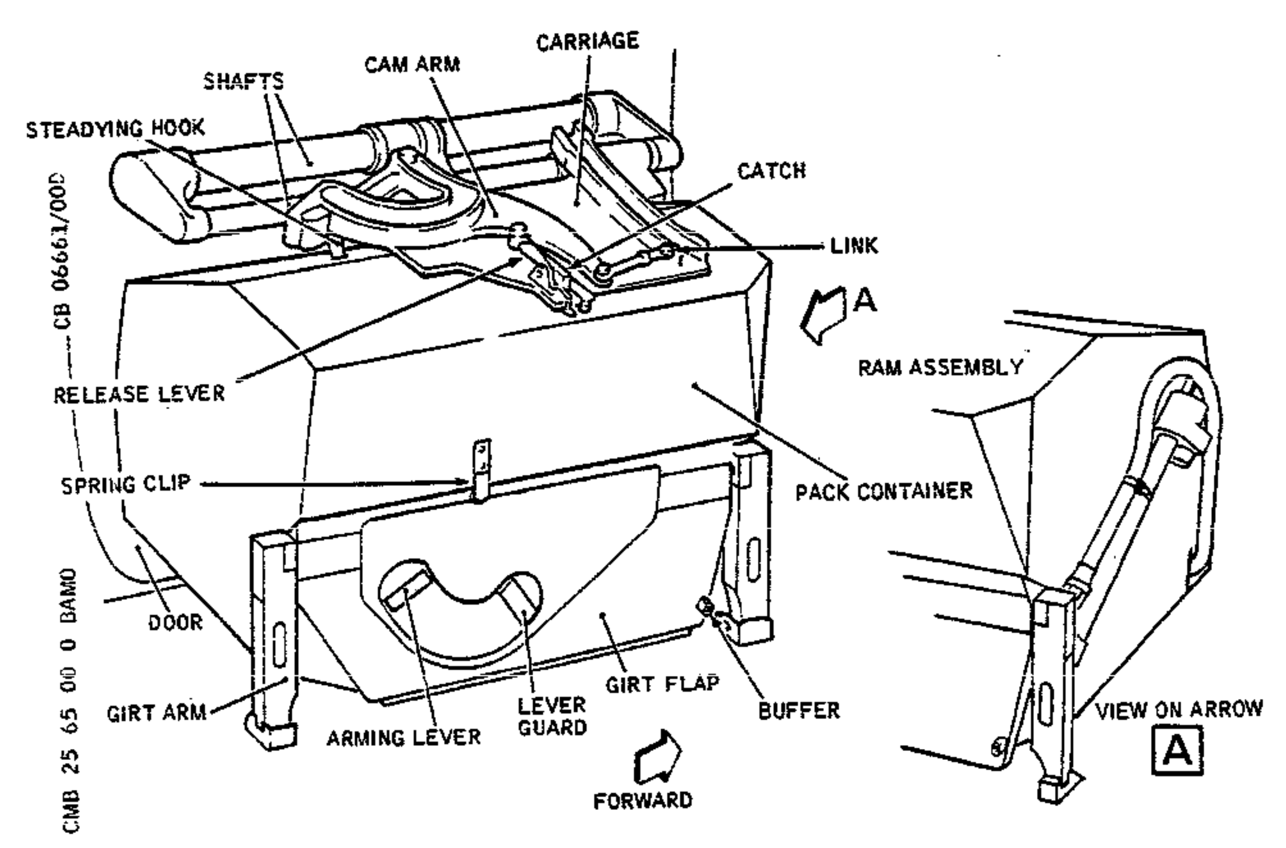
R AFTER SB 25-081

R The slide/raft (Ref. Fig. 001) fabricated mainly of
R polyurethane coated nylon fabrics comprises an inflatable
R tubular structure supporting an anti-static slide path and
R raft floor area, an overwing walkway with guide rails, flexible
R air delivery hoses and aspirator valves and electrical lighting
R systems. A door sill apron, by which the slide/raft is secured
R to the container, has the quick-release pull for releasing the
R slide/raft from the door.

3. Girt Flap (Ref. Fig. 002 and 004)

(Continued on Page 3)

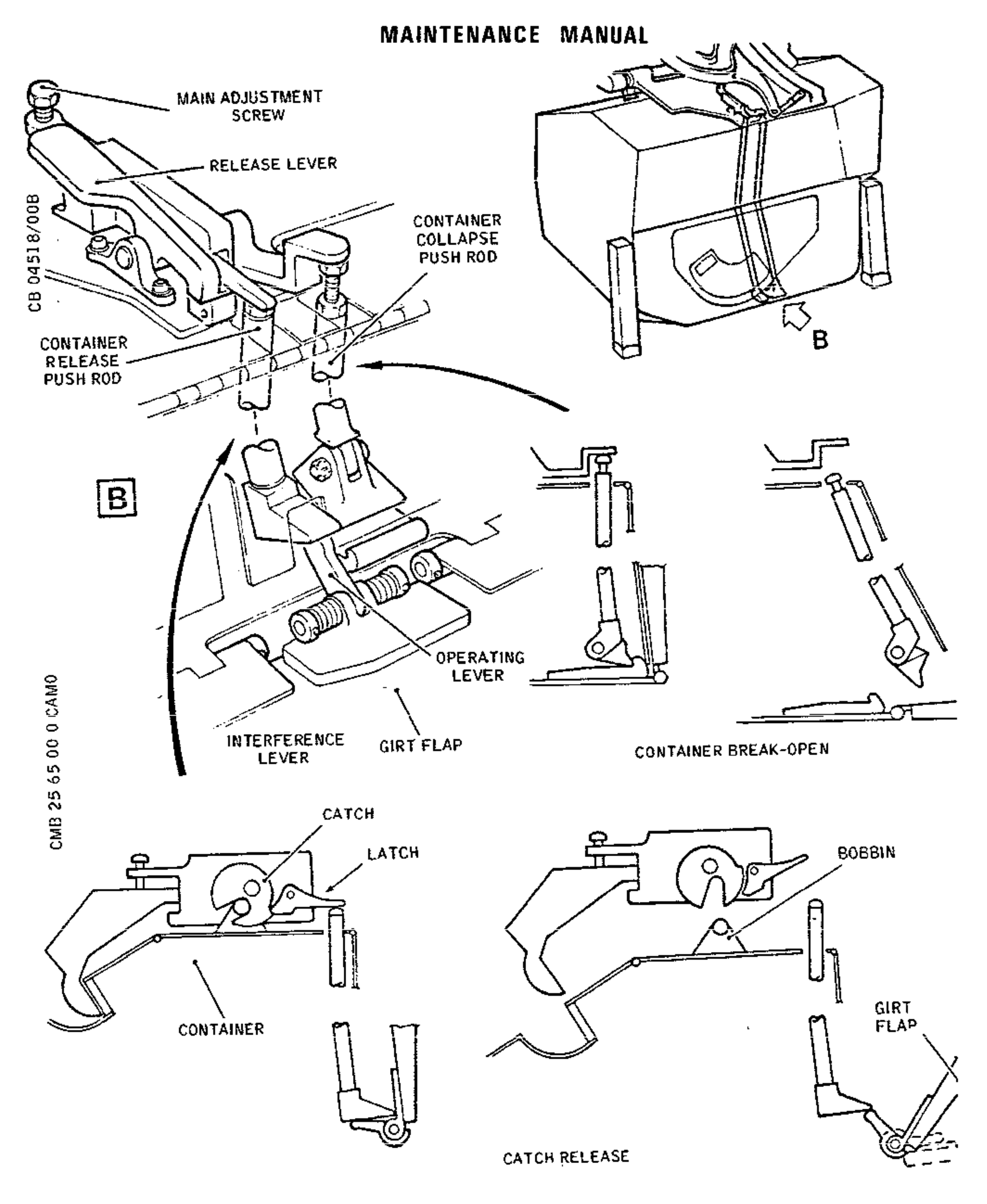
INTENTIONALLY BLANK



Slide/Raft Pack
R Figure 002

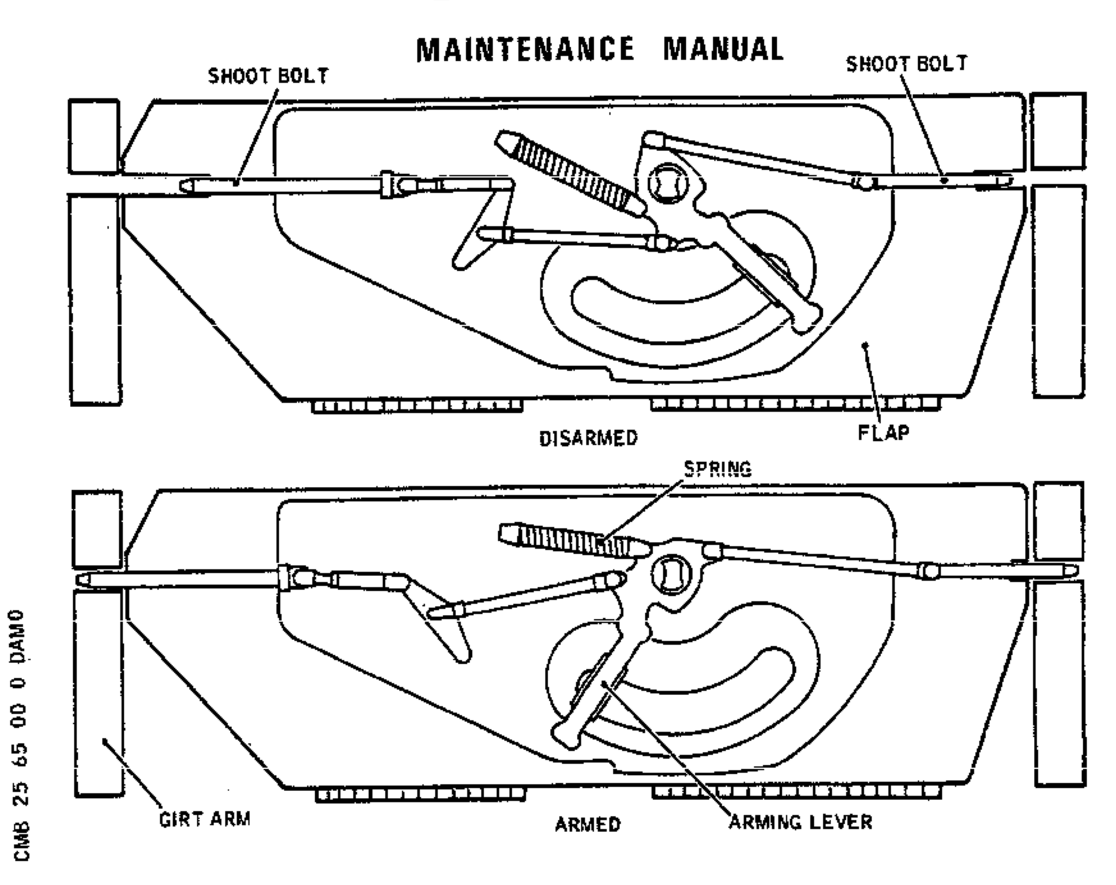
The girt flap, hinged to the container bottom panel, is used to arm the system and anchor the slide. An arming lever on the flap operates a linkage within the flap that extends or withdraws two shoot bolts. When the lever is set to DISARMED, the two shoot bolts are withdrawn and the flap is latched to the container. When the lever is set to ARMED the flap is unlatched from the container and the shoot bolts are extended to engage the girt arms and form the means by which the slide is anchored. A spring clip on the container holds the flap in position against the container to ensure free movement of the shoot bolts into the girt arms. Should the door override the fully open position, a buffer on the girt flap prevents the pack fouling the fuselage skin.

Incorporated in the girt flap hinge are two levers. One is an operating lever that locates beneath the foot of the release push rod and when the girt flap hinges down lifts the push rod to release the catch. The other is an interference lever, which, if the operating lever is incorrectly located with the release rod, will protrude through an aperture in the girt flap to prevent the arming lever being set to ARMED.



Release Mechanism
Figure 003

R



Girt Flap
Figure 004

4. Girt Arms (Ref. Fig.002 and 004)

The girt arms, fitted one on either side of the doorway, are hinged posts in which the girt flap shoot bolts engage to anchor the pack. Each arm is bolted to a shaft that pivots in a floor fitting and in the vertical position it is automatically locked by a spring-loaded lever within the arm. The arm is unlocked by depressing a striker plate at the top of the lever. This striker plate is accessible through the hole in the top of the arm in which the shoot bolt engages. When the system is armed the shoot bolt depresses the striker plate, thereby tripping the lever and leaving the girt arm free to hinge outward. A ratchet and pawl on the girt arm assembly prevents the arm rotating back when the pack is deployed.

5. Carriage Mechanism (Ref. Fig. 002)

The carriage mechanism supports the pack and maintains it centrally in the doorway during the initial opening movement of the door. It consists of two tubular shafts to which are

fitted a carriage, cam arm and link. The outer shaft carries a support fitting by which the mechanism is bolted to the door main hinge yoke. The cam arm pivots on the support fitting and is connected by the link to the carriage which moves along the shafts on ball bushings and rollers. Guide channels on both the carriage and the cam arm accommodate rollers on the main hinge and these rollers control the movement of the carriage as the door opens. Integral with the carriage are the two hooks and the catch that steady and support the container. When the container is fitted to the door, the two slots and the bobbin in the container top panel engage the hooks and the catch respectively. The catch (Ref. Fig. 003) is a cam hook with a spring loaded latch to secure it; both are mounted on a pivoted body with a main adjustment screw. This screw is used to adjust the fit of the container with the carriage. When the latch is tripped the cam hook releases the container. A release lever enables the latch to be tripped manually.

6. Disarming Mechanism (Ref. Fig. 005)

This mechanism disarms the system when the door is opened using the outer handle. The mechanism comprises two separate assemblies: one in the door and the other fitted to the adjacent door surround structure.

The disarm mechanism in the door extends a trip bolt through the side of the door when the outer handle disarm button is depressed. For a complete description of the disarm mechanism in the door refer to 52-11-11.

The disarm mechanism on the door surround structure consists of an axially-mounted torque shaft with a striker fitted to its inboard end and a lift arm to its outboard end. When the door lifts in the initial stages of door opening the trip bolt engages the lift arm rotating the shaft and striker, which contacts and returns the shoot bolts to the disarmed position. A spring assembly returns the shaft to its former position.

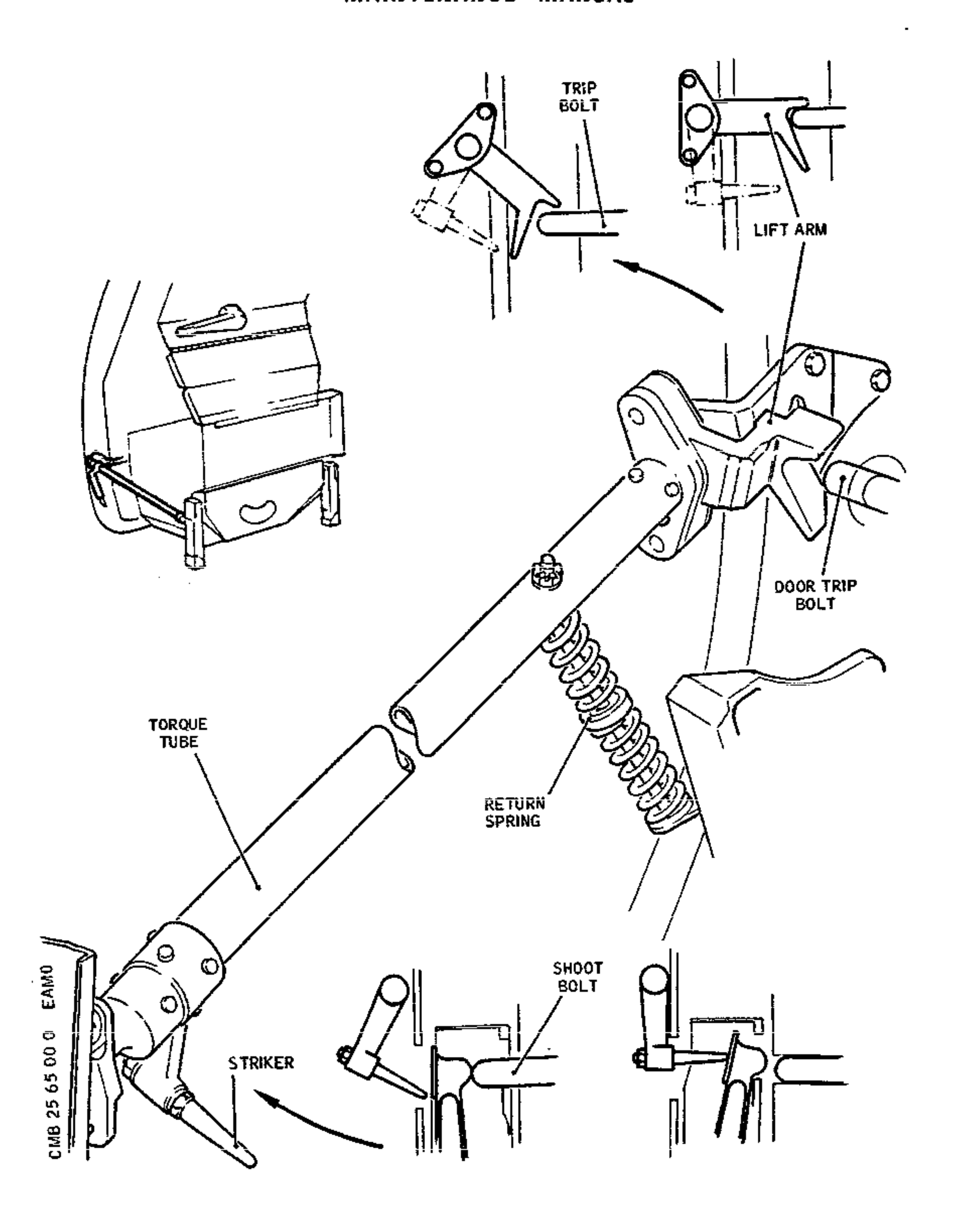
R **ON A/C 001-006,

R 7. Bottle Firing Mechanism (Ref.Fig.006)

R **ON A/C 007-007,

7. Bottle Firing Mechanism (Ref. Fig. 006)

The bottle firing mechanism comprises the inflation bottle complete with air supply pipe to the slide/raft container, the automatic firing mechanism and the manual override



Disarming Mechanism
Figure 005

R

firing mechanism.

The bottle is strapped to a mounting near the toilet bulkhead. A pipe from the bottle passes under the floor to a swivel coupling beside the door. From here a flexible hose connects to the bottom panel of the container.

R The automatic firing mechanism is a two-stage system. It consists of a rotatable torque shaft connected at one end by rods to a girt arm pivot and to a trip lever assembly at the door main hinge, and at the other end to the air bottle by a firing lever and cable. The connection between the torque tube and firing lever is made with a drive pin that locates in a slot in the lever. When the girt arm is hinged R down, the shaft is rotated to set the trip lever and the drive pin to the "armed" stage (position 2). When the girt R arm is released, two springs attached to levers on the shaft spring-load the girt arm to the vertical position. The "firing" stage (position 3) is actuated by a striker arm on the main hinge when the door is fully opened. This engages the trip lever and further rotates the torque shaft drive pin to pivot the firing lever and fire the bottle.

A manual override (standby) firing handle for use if the slide/raft fails to inflate automatically is located beside the girt arm. The firing handle is connected by cable to the cable coupling arm through which the bottle firing cable passes. When the handle is pulled the cable coupling arm engages a nipple on the firing cable and pulls it to fire the bottle.

R Certain aircraft have a stop pin fitted within the extendable R strut to prevent inadvertent operation of the automatic R firing mechanism trip lever and torque tube.

**ON A/C 007-007,

**ON A/C 001-006,

8. <u>Operation</u> (Ref. Fig. 008)

The system is manually armed from within the aircraft after the door is closed by setting the arming lever on the girt flap to ARMED.

If the door is now opened using the door inner handle the system will operate. Setting the lever to ARMED extends the shoot bolts from the girt flap to engage in the girt arms and unlatches the flap from the container inboard panel. As each bolt enters its respective girt arm it trips the locking lever within the arm leaving the arms free to

CB 06658/00D

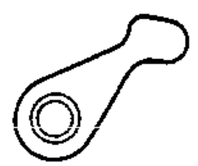
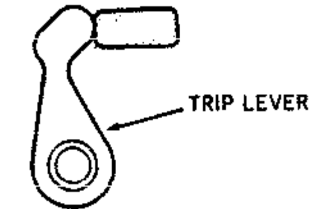
STRIKER ARM
DOOR HINGE
TRIP LEVER
TOP LEVER
SPRINGS
SARMA ROD
FLEXIBLE HOSE
OVERRIDE CABLE
ADJUSTER
GIRT ARM
CONTAINER
EXTENDIBLE STRUT
GIRT ARM LOCK PIN
TORQUE TUBE
MOUNTING BRACKET
PAWL
ADJUSTER
MANUAL OVERRIDE HANDLE
DRIVE PIN
STOP PIN
RATCHET
SAFETY PIN (IF FITTED)
FIRING LEVER
BOTTLE
CABLE COUPLING ARM
BOTTLE FIRING CABLE

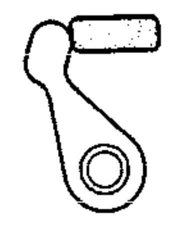
CMB 25 65 00 0 FAMA

Bottle Firing Mechanism (Sheet 1 of 3)
Figure 006

R

CB 06659/00B

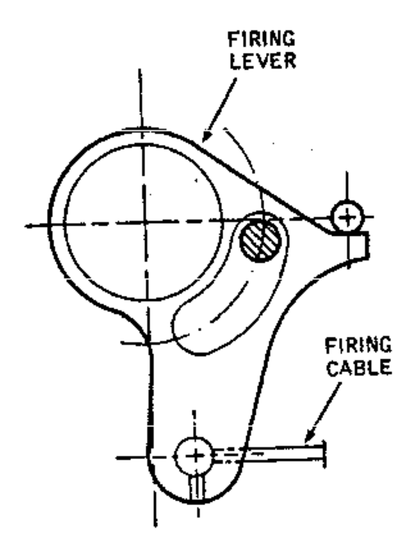



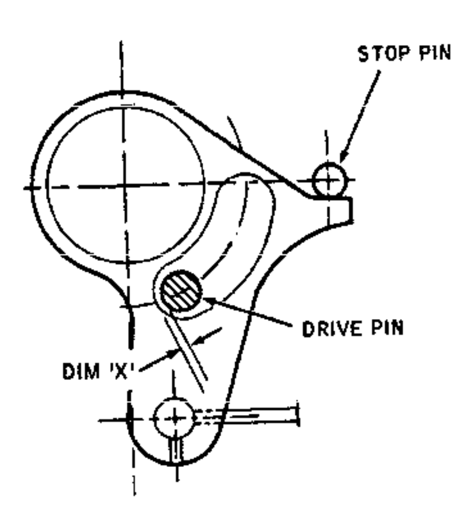


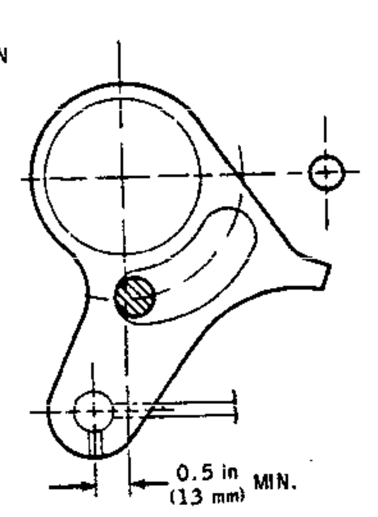
1

2

3







DOOR CLOSED (NORMAL POSITION)

GIRT ARM VERTICAL

DOOR CLOSED (ARMED POSITION)

GIRT ARM HORIZONTAL

FIRING LEVER NOT MOVED

DOOR OPEN (FIRED POSITION)

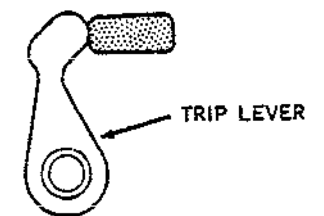
PACK DEPLOYED

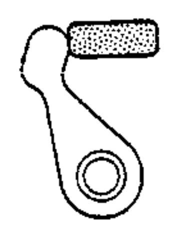
GAP IS CLOSED AND LEVER MOVED TO FIRE BOTTLE

CMB 25 65 00 0 FAMB

Bottle Firing Mechanism - Before SB25-064
(Sheet 2 of 3))
Figure 006

CB 06659/01A

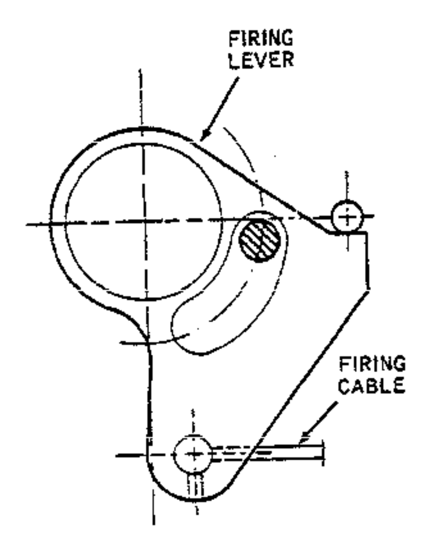


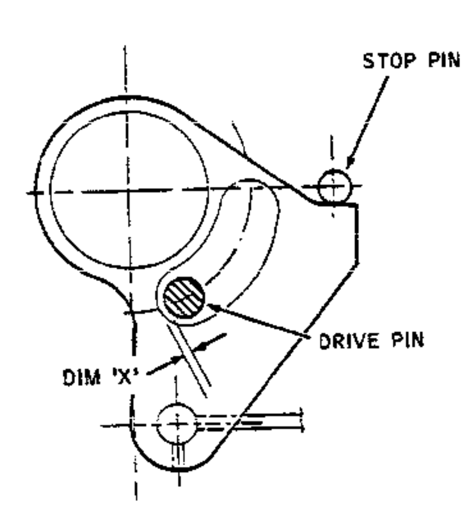


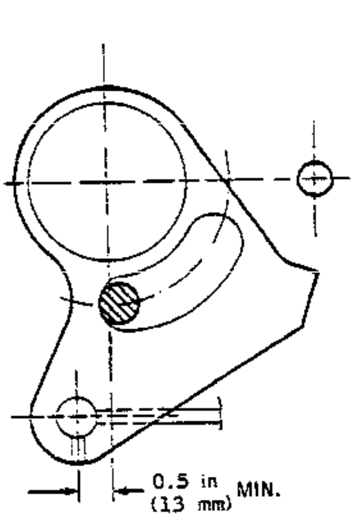
1

2

3







DOOR CLOSED
(NORMAL POSITION)

GIRT ARM VERTICAL

DOOR CLOSED
(ARMED POSITION)

GIRT ARM HORIZONTAL
FIRING LEVER NOT MOVED

DOOR OPEN
(FIRED POSITION)

PACK DEPLOYED
GAP IS CLOSED AND
LEVER MOVED TO
FIRE BOTTLE

CMB 25 65 00 0 FAMC

Bottle Firing Mechanism - After SB25-064
(Sheet 3 of 3))
Figure 006

CB 06658/00D

STRIKER ARM
DOOR HINGE
TRIP LEVER
TOP LEVER
SPRINGS
SARMA ROD
FLEXIBLE HOSE
OVERRIDE CABLE
ADJUSTER
GIRT ARM
CONTAINER
EXTENDIBLE STRUT
GIRT ARM LOCK PIN
TORQUE TUBE
MOUNTING BRACKET
PAWL
ADJUSTER
MANUAL OVERRIDE HANDLE
DRIVE PIN
STOP PIN
RATCHET
SAFETY PIN (IF FITTED)
FIRING LEVER
BOTTLE
CABLE COUPLING ARM
BOTTLE FIRING CABLE

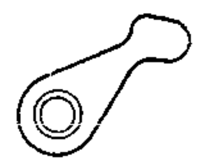
CMB 25 65 00 0 FANA

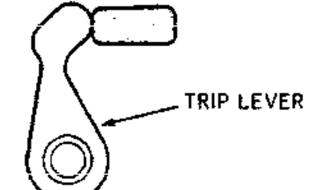
Bottle Firing Mechanism (Sheet 1 of 3)
Figure 007

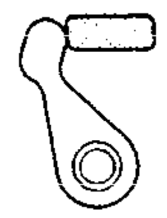
B

R

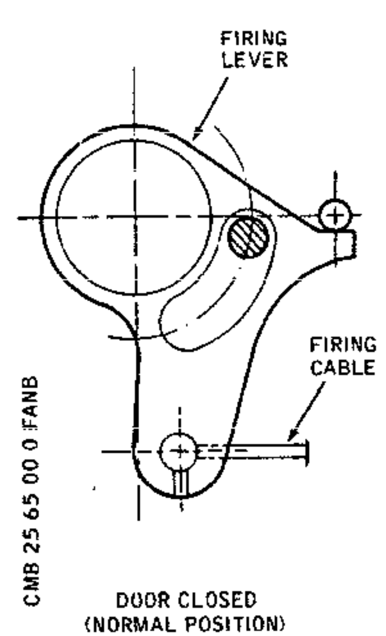
CB 06659/02A

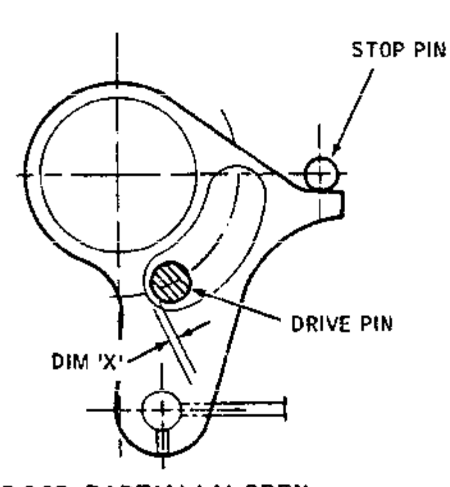


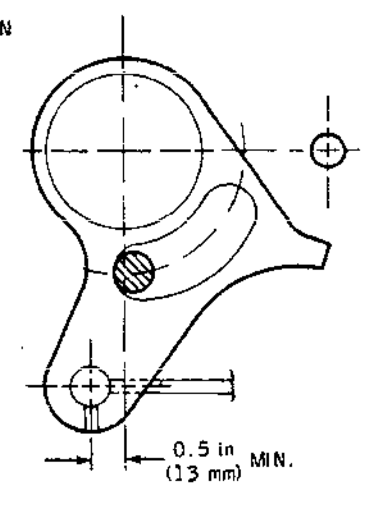




1 2 3





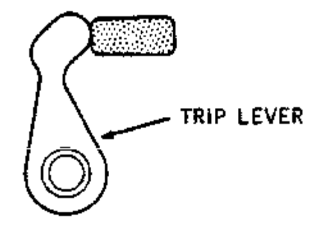


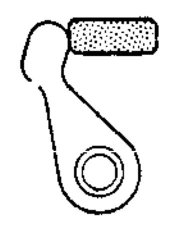
CMB 25 65 00 0 FANB

DOOR CLOSED (NORMAL POSITION)	DOOR CLOSED (ARMED POSITION)	DOOR OPEN (FIRED POSITION)
GIRT ARM VERTICAL	GIRT ARM HORIZONTAL	PACK DEPLOYED
	FIRING LEVER NOT MOVED	GAP IS CLOSED AND LEVER MOVED TO FIRE BOTTLE

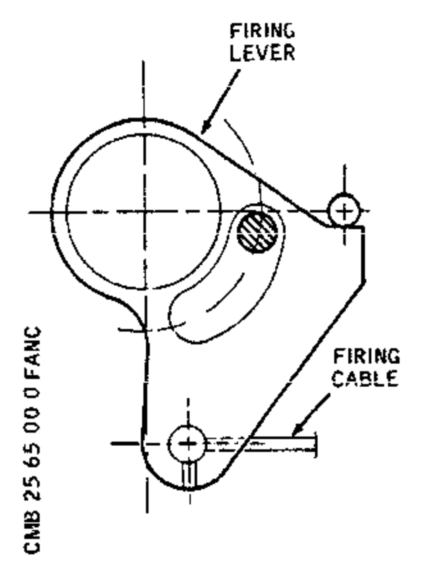
Bottle Firing Mechanism - Before SB25-064 B
(Sheet 2 of 3)
Figure 007

CB 06659/03A





1 2 3

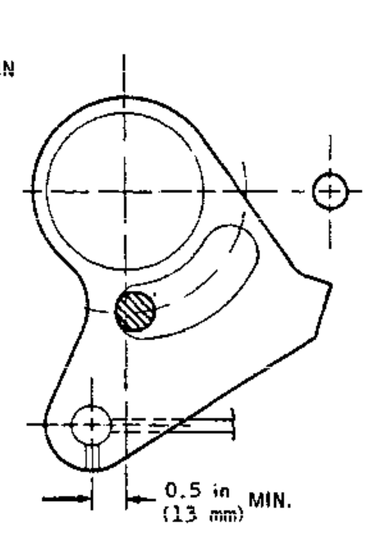


STOP PIN

DRIVE PIN

DIM 'X'

DOOR PARTIALLY OPEN



CMB 25 65 00 0 FANC

DOOR CLOSED
(NORMAL POSITION)

GIRT ARM VERTICAL

DOOR CLOSED
(ARMED POSITION)

GIRT ARM HORIZONTAL

FIRING LEVER NOT MOVED

DOOR OPEN
(FIRED POSITION)

PACK DEPLOYED

GAP IS CLOSED AND
LEVER MOVED TO
FIRE BOTTLE

Bottle Firing Mechanism - After SB25-064 B
(Sheet 3 of 3)
Figure 007

pivot. When the door commences its outward swing the carriage mechanism maintains the container centrally in the doorway and the girt flap and girt arms hinge down under the pull from the container.

As the girt flap hinges down:

**ON A/C 001-006,

(a) The bottle firing mechanism is armed by the torque tube rotating the trip lever to position 2 (Ref. Fig. 007).

**ON A/C 007-007,

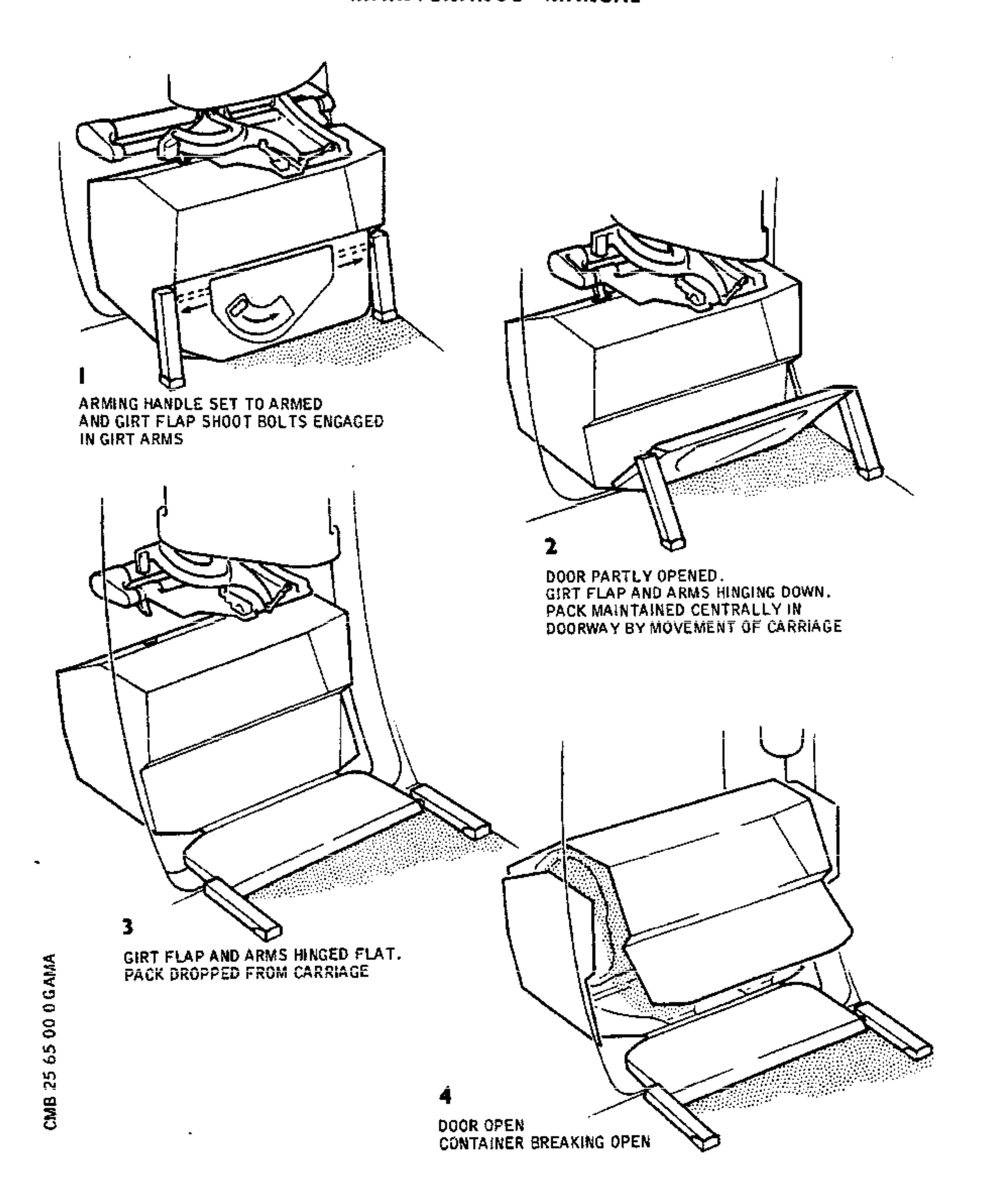
(a) the bottle firing mechanism is armed by the torque tube rotating the trip lever to position 2 (Ref. Fig. 006).

(b) the lever on the flap hinge, after a degree of "free movement" for correct timing lifts the release push rod to trip the container latch which then disengages the catch.

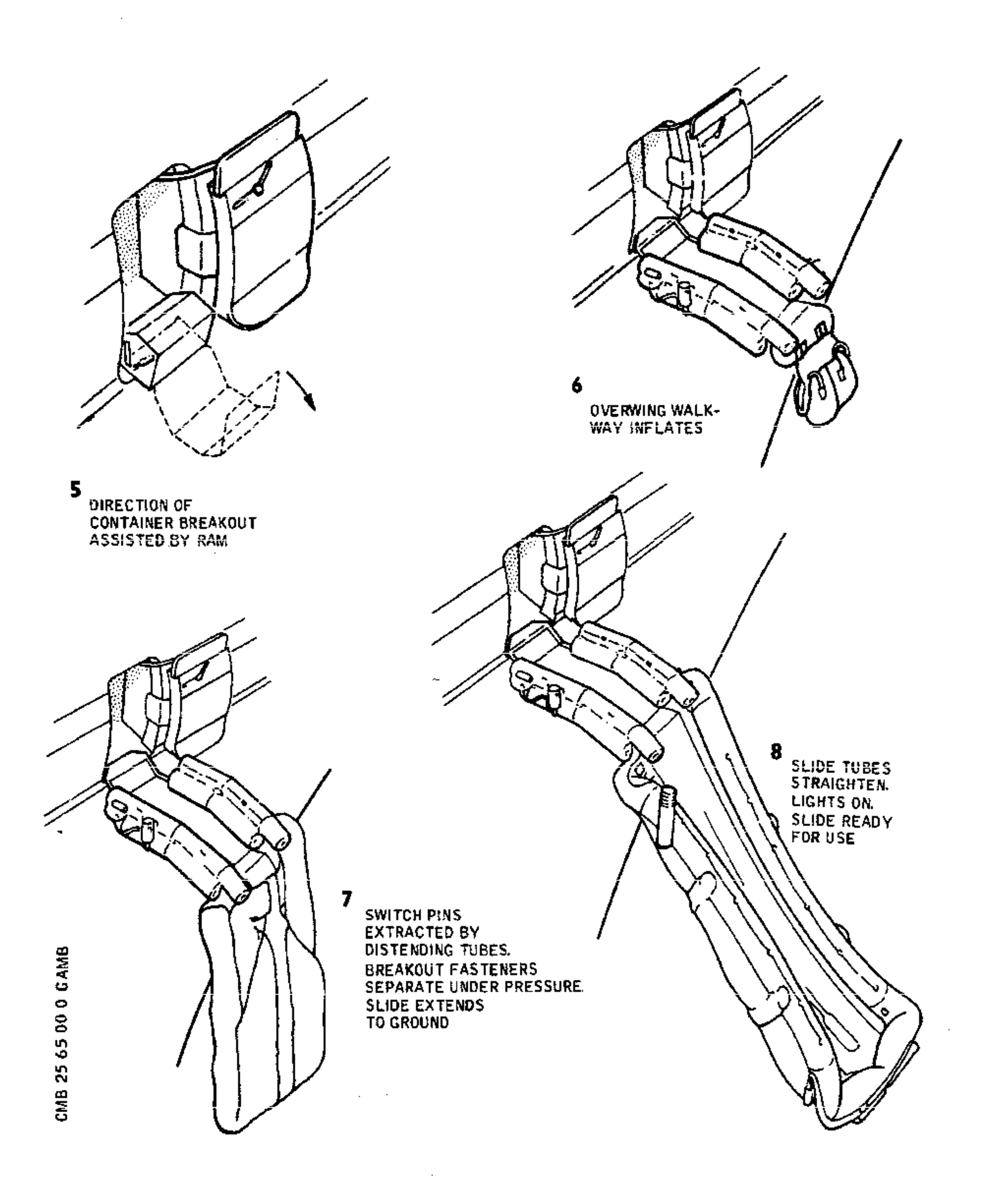
The container drops from the door causing the latch at the bottom of the collapse push rod to rotate and release the inboard panel from the bottom panel permitting the container to hinge open (Ref. Fig. 003).

As the door opens fully the striker arm moves the trip lever from the armed position 2 to the fired position. This rotates the torque tube and the resultant pull on the firing cable fires the air bottle. The air charge inflates the slide/raft via the ram assembly thereby ensuring that the ram operates and ejects the container and pack through the doorway before actually inflating the slide/raft. The container remains suspended from the door sill beneath the walkway. If automatic inflation fails, the manaual override handle is pulled to operate the bottle.

The pressure build-up in the upper transverse chambers ensures that the slide/raft erects in correct alignment to the overwing walk-way and, as inflation continues, the lighting actuating cord tensions and extracts the plastic switch-pin from the power pack, switching the lighting system ON. The walk-way and slide chambers distend until the pressure build-up is sufficient to separate the break out device fastenings; the walk-way and slide then project themselves outward from the aircraft, the slide extending to the ground. The side tubes finally straighten to provide a steady slide support for the evacuees.



Slide/Raft Inflation (Sheet 1 of 2)
Figure 008



Slide/Raft Inflation (Sheet 2 of 2)
Figure 008

Inflation time is less than 10 seconds and the slide/raft will accept the first evacuee approximately 8 seconds after initiating inflation. When inflated it can be used as a raft once it has been released from the aircraft. The slide/raft is released from the aircraft doorway by pulling a disconnect handle stowed beneath a flap marked with yellow diagonal stripes on the door sill apron. This releases a dutch lacing fastening and frees the slide/raft. The disconnect handle is secured in the flap with 'Velcro' fastening tape, so that flap and handle are grasped simultaneously.

After the slide/raft has been disconnected a lanyard attached to the container is exposed. In circumstances where the forward passenger door slide/raft pack cannot be deployed from that door the pack can be removed and be deployed at the intermediate door position using the lanyard. The pack is secured to the lanyard and dropped over the wing to deploy and self-inflate for use in the raft mode.

When opening the door using the door outer handle with the system armed, the disarm button is first depressed to spring the handle out of its recess and to extend the trip bolt of the disarm mechanism. When the door is raised during the initial stages of door opening the trip bolt engages the lift arm and rotates the torque tube of the disarm mechanism on the door surround structure. The torque tube striker depresses the shoot bolt and disengages it from the girt arm, returning the girt flap linkage to the disarmed setting. Both the disarm button and the trip bolt are reset automatically as the door lifting movement is completed.

SLIDE/RAFT SYSTEM (INTERMEDIATE PASSENGER AND SERVICE DOORS) - TROUBLE SHOOTING

1. General

Faults are dealt with on a probability basis and identified as a result of testing.

A defect can be isolated with the aid of trouble shooting procedures (Ref. para.3), and traced through OK and NOT OK paths to the appropriate charts or other specified rectification action as may be necessary. If a defect occurs, perform the appropriate rectification action, then repeat the operation at which the defect was encountered, to ensure that the operation is OK.

Bracketed numbers in the procedures and charts indicate items on the component identification table (Ref. Table 101). The table provides information, including component location, required for rectification. Each chart specifies any ground equipment required for that particular task.

2. Preparation

A. Safety Precautions

R B NOTE: The safety pin must be fitted to the bottle prior
R B to any other action.

(1) Disconnect and remove the inflation bottle (Ref. 25-65-14, Removal/Installation).

B. Prepare

(1) Remove the locking pin from the arming lever on the girt flap.

(2) Remove the lock pin from the forward girt arm.

(3) To facilitate procedure position one operator at the inside of the door and another at the outside of the door.

(4) Close and lock the door.

3. Trouble Shooting

NOTE: All OK paths must be followed.

A. Prepare to trouble shoot (ref.para.2) Depress disarm button; check that handle ejects from stowage and trip bolt extends from door edge. IF -

- OK → B.
- NOT OK →
  1. Button is difficult to depress - Chart 101.
  2. Button depressed but handle does not eject and trip bolt does not extend from door - Chart 102.

B. Turn handle to raise door. As door rises check that trip bolt operates disarm mechanism on door surround structure to depress shoot bolt from girt arms and move girt flap arming lever to DISARMED. IF-

- OK → C.
- NOT OK → Door surround mechanism does not depress shoot bolts from girt arms - Chart 103.

C. Close door, check that handle and disarm button are flush with skin. IF -

- OK → Set girt flap arming handle to DISARMED
- NOT OK → Disarm button is not flush with door skin. Check that disarming mechanism is not sticking and that mechanism return spring is not damaged - Chart 101.

and fit safety locking pin.
Fit lock pin to forward girt arm.
Refit inflation bottle.
Carry out slide/raft operation test.
(25-65-00, Adjustment/Test).
****

DOOR DISARM BUTTON IS DIFFICULT TO DEPRESS

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO.
SPRING BALANCE, COMPRESSION TYPE, RANGE 0-22 lbf (0-10 kgf)	-

WARNING: ENSURE THAT INFLATION BOTTLE HAS BEEN REMOVED

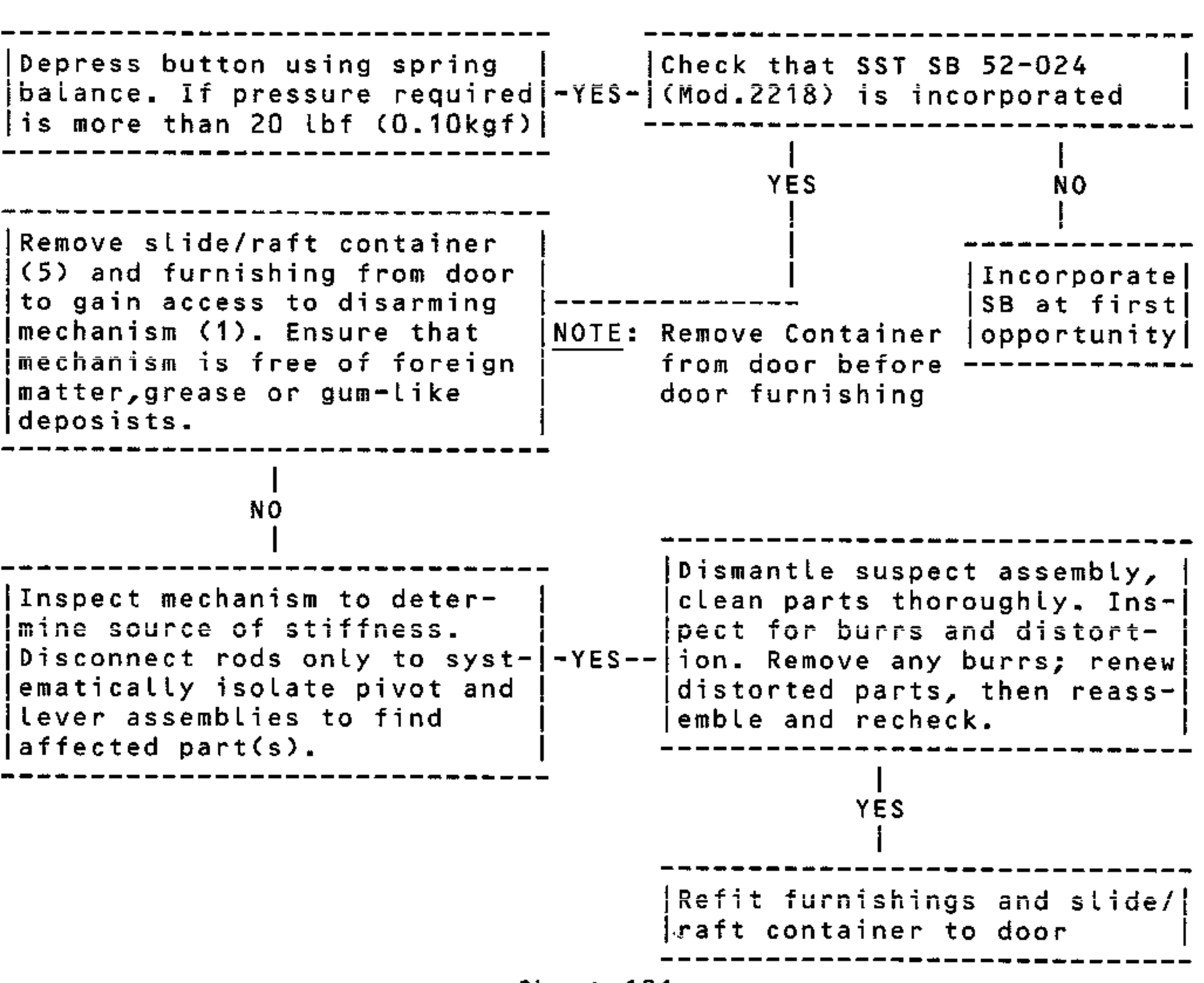


Chart 101

```
*******************************
|BUTTON DEPRESSES BUT DOOR     |
|HANDLE DOES NOT EJECT FROM    |
|ITS STOWAGE AND/OR TRIP BOLT  |
|DOES NOT EXTEND FROM DOOR     |
*******************************

-------------------------------
|Remove slide/raft container  |NOTE: Remove container from door
|(5) and furnishing from door |      before door furnishing panels.
|to gain access to disarming  |
|mechanism (1). Inspect pivot |
|assembly behind door handle, |
|all push rods and lever ass- |
|emblies for obstruction and  |     -------------------------------
|disconnected parts.          |-NO--|Check trip bolt for damage or|
-------------------------------     |distortion.                  |
              |                     -------------------------------
             YES                                  |
              |                                   |
-------------------------------                  YES
|Clear obstruction or recon-  |                   |
|nect assembly.               |     -------------------------------
-------------------------------     |Renew trip bolt.             |
              |                     -------------------------------
             YES                                  |
              |                                  YES
-------------------------------                   |
|Refit furnishings and slide/ |                   |
|raft container to the door.  |--------------------
-------------------------------
```

Chart 102

```
*******************************
|DOOR SURROUND MECHANISM DOES |
|NOT DEPRESS SHOOT BOLT FROM  |
|GIRT ARM                     |
*******************************
```

WARNING: ENSURE THAT INFLATION BOTTLE HAS BEEN REMOVED

```
-------------------------------      -------------------------------
|Replace life/raft pack on    |      |Check all items of disarming |
|door. Close door and set pack|      |mechanism in door surround   |
|arming handle to ARMED. Oper-|-NO--|for security; that no parts  |
|ate door handle to lift door |      |are disconnected or broken.  |
|and check that door trip bolt|      -------------------------------
|engages and pivots lift arm  |            |         |
|on door surround.            |            NO        YES
-------------------------------            |         |
                -------------------------            |
                |                                    |
-------------------------------      -------------------------------
|Check that striker on door   |      |Reconnect or replace parts of|
|surround contacts girt flap  |      |disarm mechanism (2) as nec- |
|shoot bolts cleanly and does |      |essary.                      |
|not foul girt arm hole.      |      -------------------------------
-------------------------------
              |        |             -------------------------------
             YES       --NO---------|Check that girt arm (3) is   |
              |                      |not damaged or distorted,    |
-------------------------------      |preventing correct locked-up |
|Check life-raft container    |      |position.                    |
|girt flap (4) arming mechan- |      -------------------------------
|ism for stiffness of operat- |
|ion.                         |
-------------------------------
              |
             YES
              |
-------------------------------
|Remove life/raft container   |
|(5) from door and refit new  |
|container.                   |
-------------------------------
```

Chart 103

ITEM NO. AND DESCRIPTION	ACCESS PANEL	PANEL/ ZONE	EQUIP. IDENT.	POSITION	MANUAL REF. MAINT TOPIC	WIRING DIAGRAM
(1)Door disarming mechanism	-	L223 R224	-	Intermediate LH and RH doors	52-11-11 D/O	
(2)Door surround disarming mechanism	-	L223 R224	-	Intermediate LH and RH door surround	25-65-12 R/I	
(3)Girt arm	-	L223 R224	-	Vestibule floor, associated doorway	25-65-	
(4)Girt flap	-	L223 R224	-	On life/raft container	25-65-11 D/O	
(5)Life/raft container	-	L223 L224	-	On intermediate LH and RH doors	25-65-11 R/I	

Component Identification
Table 101

SLIDE/RAFT SYSTEM (INTERMEDIATE PASSENGER AND SERVICE DOORS) - ADJUSTMENT/TEST

1. General

A slide/raft system is fitted to the intermediate passenger and service doors. Each has its own inflation system comprising inflation bottle and bottle firing mechanism stowed on the forward side of the adjacent furnishing. The following procedures are for either door and include operational tests of the system (with and without deployment and inflation), lighting pack checks, and a function test of the bottle firing mechanism.

2. Slide/Raft System Operational Test - Slide Inoperative (Without Inflation)

WARNING: DO NOT OPEN THE DOOR USING THE DOOR INNER HANDLE WHEN THE ARMING LEVER IS SET TO "ARMED" AS THIS WILL OPERATE THE SYSTEM AND RELEASE THE PACK. THE GIRT ARM LOCK PIN, THE GIRT FLAP ARMING LEVER LOCK PIN AND THE INFLATION BOTTLE SAFETY PIN MUST BE IN POSITION THROUGHOUT THE TESTS AND BE REMOVED ONLY AS NECESSARY TO CARRY OUT THE FOLLOWING INSTRUCTIONS.

A. Test

R CAUTION: ENSURE THAT THE GIRT ARMS ARE RETURNED TO THE
R VERTICAL POSITION - FAILURE TO DO SO MAY RESULT
R IN DAMAGE TO THE SLIDE/RAFT OPERATING MECHANISM

(1) Check that both girt arms are locked in the vertical position. Insert a finger into the slot for the shoot bolt in each arm and depress the locking lever to release the arm. Ensure no foreign matter or objects prevent the girt arms locking into their fully down position and hinge each arm outboard and check that ratchets function satisfactorily. Return the arm to the vertical position by releasing the ratchet pawl.

NOTE: Take care to avoid damage to the firing mechanism beneath the main hinge arm during this operation.

(2) With the door closed and the arming handle on the girt flap set to DISARMED, check that the flap is securely latched to the container by its spring clip.

(3) Set the arming handle to "ARMED" and check that the shoot bolts engage the girt arms easily.

(4) Open the door using the door outer handle and check that the disarming mechanism is effective:

(a) Depress the disarm button on the outer handle and check that the handle ejects from its stowage and the trip-bolt extends from the edge of the door.

(b) Turn the handle to lower the door flap and raise the door. As the door rises check that the trip bolt operates the disarming mechanism on the door surround structure to depress the shoot bolt from the girt arm. The resultant movement of the linkage returns the girt flap arming lever to DISARMED and locks the girt flap to the container.

(5) With the lever set to DISARMED, open the door using the inner handle and check that the pack container is maintained in the centre of the doorway by the carriage mechanism during the initial opening movement of the door. When closing the door from the fully opened position check that the rollers on the main hinge engage smoothly in the guide channels of the carriage mechanism.

CAUTION: DO NOT OPEN THE DOOR MORE THAN THE AMOUNT STATED AS THIS MAY PRECIPITATE THE PACK FROM THE DOOR.

(6) Set the arming lever to "ARMED", disengage the spring clip and open the door no more than 5 to 7 in (127 to 177 mm). Check that the girt flap and girt arms are unlocked and are free to pivot.

(7) Close the door to return the girt flap back against the container so that it locates on the latch and spigots. Re-engage the spring clip and set the arming lever to DISARMED.

(8) Check the bottle firing mechanism (Ref. para. 4).

3. Slide/Raft System Operational Test - Slide Operative (With Inflation)

A. Test

(1) Ensure that the area beneath the door over which the slide/raft will deploy is clear of objects that may damage the slide, and drape the area with protective sheeting.

(2) Ensure that the door with the pack to be tested is fully closed and secured.

(3) Remove the safety pin from the girt flap arming lever and move the lever to "ARMED".

WARNING: ONCE THE DOOR IS OPENED ALL SUBSEQUENT OPERATIONS ARE AUTOMATIC AND PERSONNEL MUST KEEP CLEAR OF THE SLIDE DURING DEPLOYMENT.

(4) Rotate the door inner handle to the open position and push the door open. Check that the slide/raft deploys and inflates in approximately 10 seconds.

NOTE: If the slide/raft fails to inflate automatically pull the manual override (standby) handle beside the forward girt arm.

(5) Check that the slide/raft has deployed satisfactorily, that all chambers are inflated and that the lights are illuminated.

4. Bottle Firing Mechanism - Rigging (Ref. Fig. 501)

A. General

This rigging procedure covers the adjustable length setting of the Sarma rod and the extendable strut on the bottle firing mechanism. Adjustment of the manual emergency firing cable is made, if necessary, when the inflation bottle is installed in the aircraft.

The Sarma rod and the extendable strut connect the trip lever and the girt arm respectively to the firing lever torque tube. The firing lever mechanism is situated beside the bottle on the forward side of the adjacent toilet.

WARNING: THE INFLATION BOTTLE MUST BE REMOVED BEFORE RIGGING THE MECHANISM.

B. Equipment and Materials

DESCRIPTION	PART NO.
Slip gauge, 0.030 in (0.76 mm)	-

C. Rigging Procedure

R B NOTE: The safety pin must be fitted to the bottle prior
R B to any other action.

(1) Remove the inflation bottle (Ref.25-65-14, Removal/Installation).

(2) Ensure the girt arm is locked in the vertical position.

(3) Disconnect the Sarma rod and the extendable strut from the torque tube.

(4) With a slip gauge, 0.030 in (0.76 mm) thick, interposed between the top lever and the stop at the door hinge, reconnect the Sarma rod to the torque tube lever.

NOTE: The torque tube will be held in position by the two springs pulling the firing lever onto the stop pin.

(5) Check that the girt arm can rotate inboard as far as the vertical locking catch will permit; adjust the girt arm stop to abut the arm in this position.

(6) Adjust the solid length of the extendable strut so that the girt arm is held on its stop without rotating the torque tube.

(7) Remove the slip gauge from the stop.

(8) Torque-load the slotted nut securing the Sarma rod to between 25 and 30 lbf in (0.28 and 0.34 mdaN) and fit a split-pin.

(9) Fit a split-pin to the special bolt securing the extendable strut.

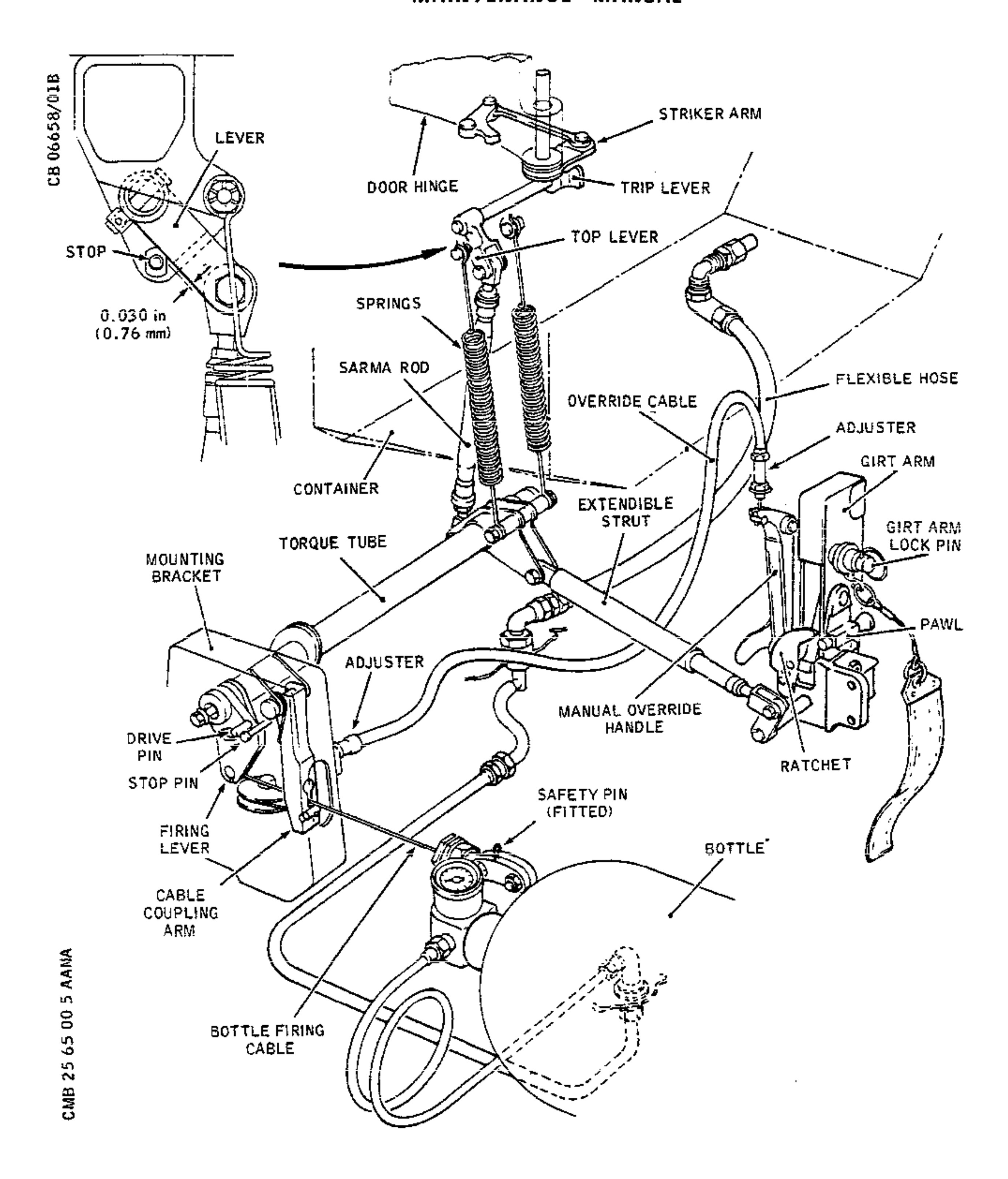
(10) Complete the rigging procedure by carrying out the bottle firing function test given in para.5.

NOTE: The rigging of the bottle firing cable is completed when the inflation bottle is installed (Ref.25-65-14, Removal/Installation).

5. Bottle Firing Mechanism - Function Test (Ref. Fig. 501)

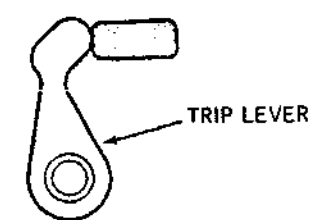
WARNING: BEFORE FUNCTION TESTING THE FIRING MECHANISM IT IS ESSENTIAL THAT THE INFLATION BOTTLE BE REMOVED AS A SAFETY MEASURE. IT IS NOT SUFFICIENT TO DISCONNECT THE BOTTLE.

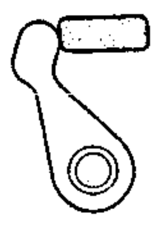
CAUTION: THE FOLLOWING MECHANICAL TEST SEQUENCE INVOLVING



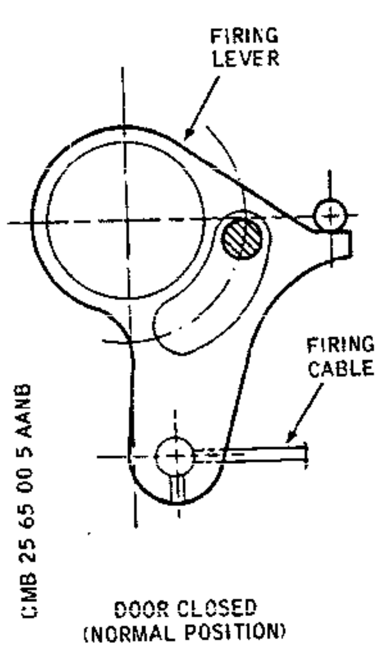
Bottle Firing Mechanism (Sheet 1 of 3) B
R Figure 501

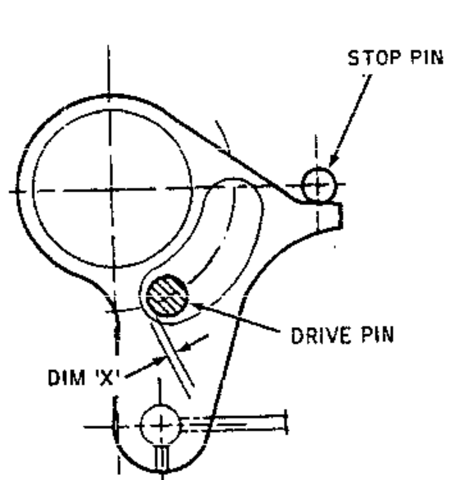
CB 06659/02A

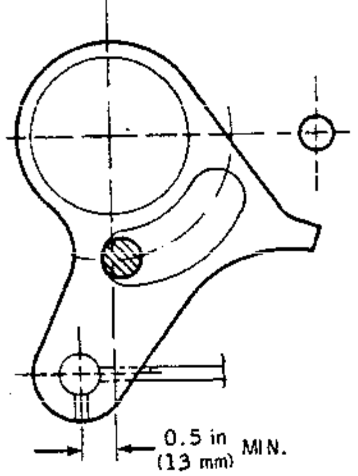




1 2 3







CMB 25 65 00 5 AANB

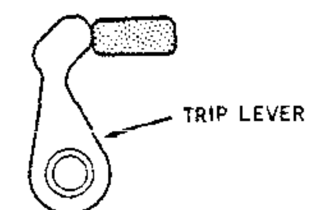
DOOR CLOSED
(NORMAL POSITION)
GIRT ARM VERTICAL

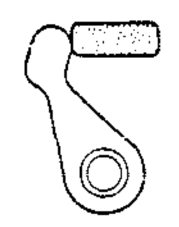
DOOR CLOSED
(ARMED POSITION)
GIRT ARM HORIZONTAL
FIRING LEVER NOT MOVED

DOOR OPEN
(FIRED POSITION)
PACK DEPLOYED
GAP IS CLOSED AND
LEVER MOVED TO
FIRE BOTTLE

Bottle Firing Mechanism - Before SB25-064 B
(Sheet 2 of 3)
Figure 501

CB 06659/03A

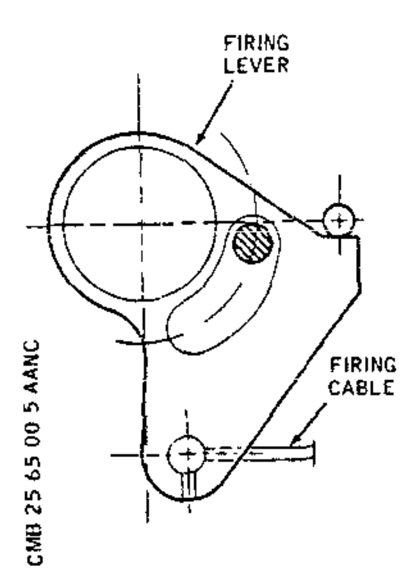




1

2

3



STOP PIN

DRIVE PIN

DIM 'X'

DOOR PARTIALLY OPEN

0.5 in (13 mm) MIN.

DOOR CLOSED
(NORMAL POSITION)

GIRT ARM VERTICAL

DOOR CLOSED
(ARMED POSITION)

GIRT ARM HORIZONTAL

FIRING LEVER NOT MOVED

DOOR OPEN
(FIRED POSITION)

PACK DEPLOYED

GAP IS CLOSED AND
LEVER MOVED TO
FIRE BOTTLE

Bottle Firing Mechanism - After SB 25-064 B
(Sheet 3 of 3)
Figure 501

MANUAL ROTATION OF THE GIRT ARM MUST BE ADHERED TO AS DAMAGE TO THE AUTOMATIC FIRING MECHANISM MAY OTHERWISE RESULT.

A. Test

(1) Remove the inflation bottle (Ref. 25-65-14).

(2) With the door opened sufficiently to expose the forward girt arm, release the girt arm lock lever and hinge the arm down to floor level. Ensure that the trip lever is not in contact with the striker arm. Check that :

(a) With the firing lever held manually against the stop pin the drive pin moves freely from one end to the other of the slot in the firing lever without moving the lever, and that at the end of the travel there is a gap of 0.030 in (0.7mm)(dimension X) between the drive pin and the end of the slot (Ref.Fig. 501).

(b) The trip lever moves from the normal to the armed position.

(3) Fully open the door so that it latches in the open position and the striker arm on the main hinge pushes the trip lever to the fired position. Check that the drive pin moves the firing lever a minimum of 0.5 in (12.7 mm).

(4) Pull the manual override firing handle as far as it will go and check that the cable end fitted in the cable coupling arm travels between 0.9 and 1.1 in (22.8 and 27.9 mm).

(5) Partially close the door (trip lever clearing the strike arm) and return the girt arm and manual release lever to the vertical position. Set the girt arm to the horizontal position to put the drive pin in the firing lever, in the armed position, Position 2 (Ref. Fig. 501). Then open the door just enough to move the drive pin to the end of the slot. Check that the position of the door edge in relation to the edge of the door surround is as Fig. 502, Position 1. Also check that the firing lever does not move before the door reaches Position 1; if this condition is not achieved, re-check the rigging of the door (52-11-11) and the firing mechanism.

(6) Open the door to the point where the firing lever has

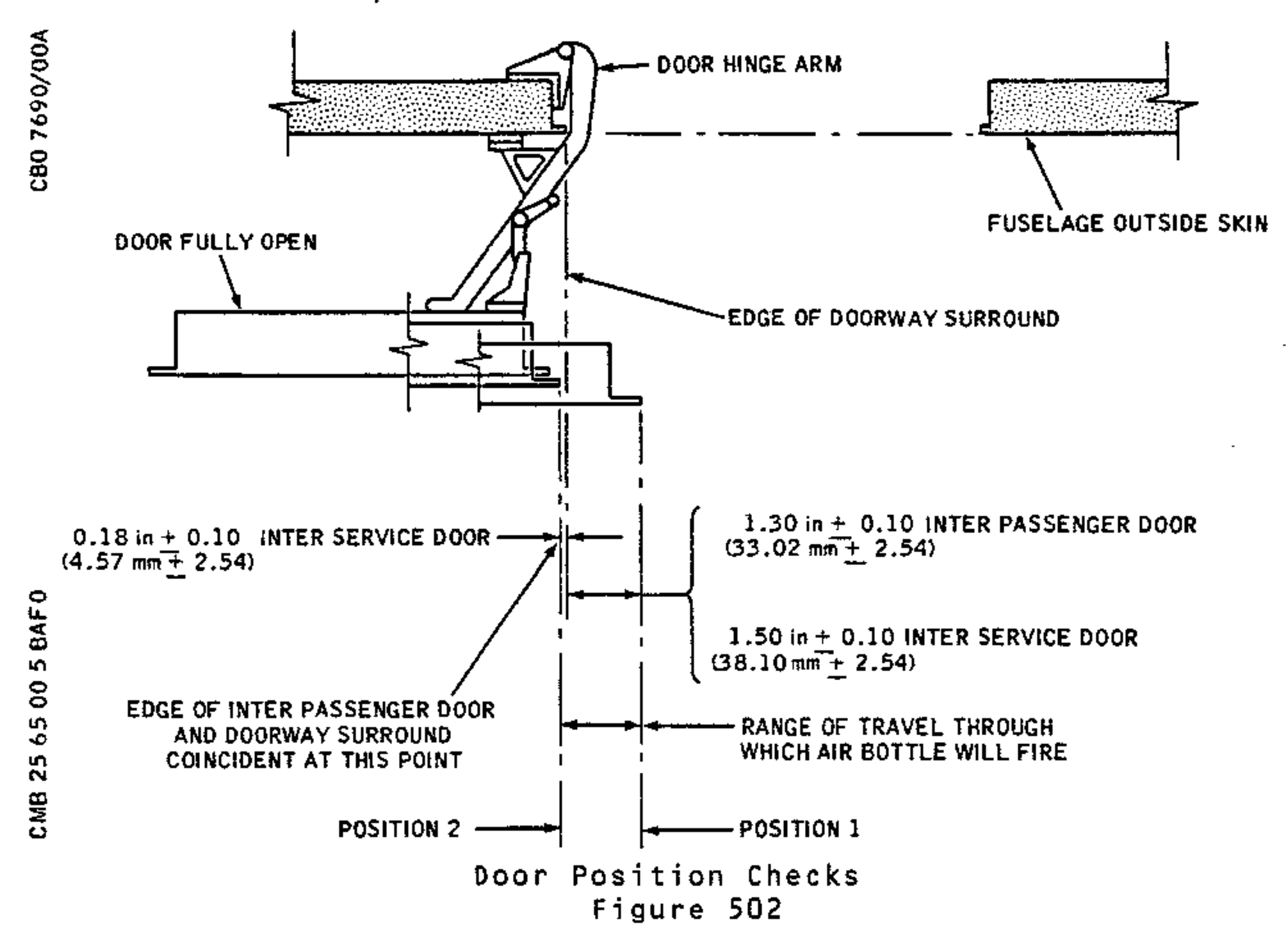
moved just 0.5 in (12.7 mm) and check that the position of the door edge in relation to the door surround is as Fig. 502, Position 2.

(7) At the completion of the check:

(a) Move the door from fully open to closed, and return the girt arm to the vertical position.

(b) Refit the inflation bottle (Ref. 25-65-14).

(c) Ensure that the girt arm and girt flap arming lever lock pins, and the inflation bottle safety pins are fitted.



Door Position Checks
Figure 502

6. <u>Disarm Mechanism Operational Test</u>

<u>WARNING:</u> BEFORE PROCEEDING WITH THE FOLLOWING TESTS, DISCONNECT AND REMOVE THE INFLATION BOTTLE, THEN REMOVE THE FORWARD GIRT ARM LOCK-OUT PIN.

DURING THIS TEST DO NOT ALLOW THE DOOR TO SWING OUTBOARD UNTIL THE ARMING LEVER ON THE SLIDE/RAFT CONTAINER GIRT FLAP HAS BEEN RETURNED TO THE DISARMED POSITION.

NOTE: Two persons are required at the door to perform this test, one inside the fuselage and one outside.

A. Equipment and Material

DESCRIPTION	PART NO.
Spring balance,compression type, graduated in 4 oz (113 g) steps, range 0 to 22 lbf (0 to 9.98 kgf)	-

B. Prepare

(1) Remove the inflation bottle (Ref.25-65-14).

(2) Remove the forward girt arm lock-out pin.

C. Test

(1) With door open, use the compression spring balance to depress the disarm button on the door outer handle, check that:

(a) The load required to operate the disarm button, applied at the centre of the shaft, is between 15 and 20 lbf (8.6 and 9.1 kgf).

(b) The handle ejects from its stowage.

(c) The trip bolt extends from the door edge. Return the handle to the flush position.

(2) With the door closed and locked, remove the locking pin from the slide/raft container girt flap arming lever. Move the arming lever to the ARMED position.

(3) Depress the disarm button, then rotate the outer door handle and as the door rises check that the arming lever moves to fully DISARMED.

(4) Close the door with either the inner or outer handle, then check that the disarm button has reset and is flush with the door outer skin profile.

D. Conclusion

(1) Refit the forward girt arm lock-out pin.

(2) Refit the inflation bottle (Ref. 25-65-14).

7. Lighting Harness Test (Ref. Fig. 503)

A. General

An alkaline battery pack to power the slide raft lighting system is integral with the container pack. The test jack for the battery pack is accessible via an inspection window in the top of the container and enables the test to be carried out without removing the pack from the door.

B. Equipment and Materials

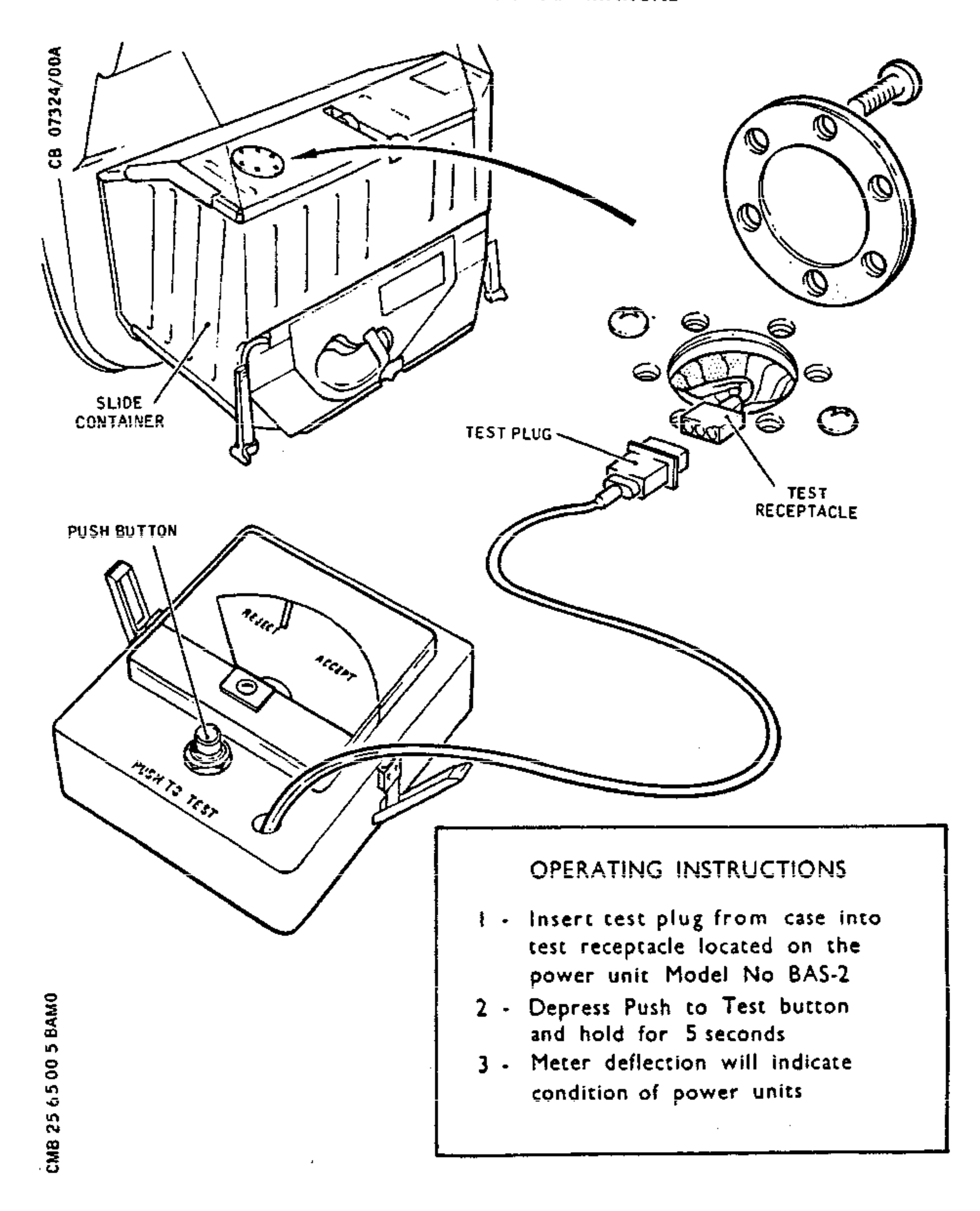
DESCRIPTION	PART NO.
Test set, lighting harness	TS.10 or RFD B02706-009-7
or alternatively	
Avometer	-
RB TU-14	-

C. Test

(1) Ensure that the girt flap lever is set to DISARMED and is secured with the safety pin.

(2) Remove the inspection window on the top face of the container and retrieve the flying lead test receptacle.

(3) If using the test set, connect it to the flying lead test receptacle. Test in accordance with the battery tester instructions. A reading below the red ACCEPT datum mark indicates that more than one lamp is inoperative or the power pack is not delivering the required current.



Lighting Harness - Testing
Figure 503

RB (4) Detailed below are the light harness test readings associated with each piece of test equipment and harness type.

	AVOMETER*	TU-14	SLIDE Pt No
Old Light Harness (Pt No.01296011/6021/8001)	1.125 Min.	0.940-1.145	AESR30E1
	1.125 Min.	0.911-1.174	AESR31E1
New Light Harness (Pt No.P2-01-0035-85/86/87)	0.754 Min.	0.610-0.780	AESR31E1 AESR30E1

RB * If using the Avometer, connect its test leads to the appropriate terminals in the flying lead test receptacle, ensuring correct polarity, and check the current for 5 seconds.

RB NOTE: A new label is on packs to identify the new lamp harnesses and the appropriate ampere readings.

(5) At the conclusion of the test, disconnect the test set, Avometer or TU-14, replace the test receptacle and refit the inspection window.

SLIDE/RAFT SYSTEM (INTERMEDIATE PASSENGER AND SERVICE DOORS) - INSPECTION/CHECK

1. General

The following inspection/checks are applicable to the system fitted to each intermediate door.

2. Inspection/Check

R A. Equipment and Materials

DESCRIPTION	PART NO.
Aeroshell grease No.16 (Ref. 20-30-00, No.51)	-
Spring balance, compression type graduated in 4 oz (113 g) increments, range 0 to 22 lbf (0-10 kgf)	-

R B. Prepare to Inspect

WARNING: BEFORE COMMENCING WORK ON THE SLIDE/RAFT SYSTEM FIT THE SAFETY PIN IN THE INFLATION BOTTLE, SECURE THE GIRT FLAP ARMING LEVER AT "DISARMED" WITH THE LOCKING PIN AND FIT THE LOCK-OUT PIN IN THE FORWARD GIRT ARM.

R

DO NOT OPEN THE DOOR USING THE DOOR INNER HANDLE WHEN THE ARMING LEVER ON THE GIRT FLAP IS AT "ARMED" AS THIS WILL OPERATE THE SYSTEM AND RELEASE THE PACK. FIRST ENSURE THAT THE LEVER IS AT "DISARMED".

(1) With the arming lever on the girt flap set to DISARMED and secured with the safety pin, use the door inner handle to partially open the door.

(2) Remove the furnishing covers from the bottle firing mechanism and the disarming mechanism and raise the hinged console cover above the carriage mechanism.

R C. Inspect

(1) Inspect the pack container, girt flap, girt arms, disarming mechanism, bottle firing mechanism and pack carriage assembly for cleanliness, and freedom from corrosion, distortion and damage.

(2) Ensure that the interference lever is not protruding through the girt flap thereby preventing the arming handle from being moved to ARMED.

NOTE: Protrusion of the interference lever denotes incorrect assembly of the release push rod.

(3) Ensure that no foreign matter or objects are present on the floor or bulkhead to prevent the girt arms from pivoting into their fully lowered position.

D. Check

(1) Check all parts for security of attachment.

(2) Check that all moving parts move easily, are lubricated with Aeroshell grease No.16, and have no surplus deposits of grease to trap dust, swarf or grit.

CAUTION: DO NOT APPLY ANY FORM OF LUBRICANT TO THE DOOR DISARMING BUTTON MECHANISM.

(3) Check that the pack container is firmly held by the pack support carriage.

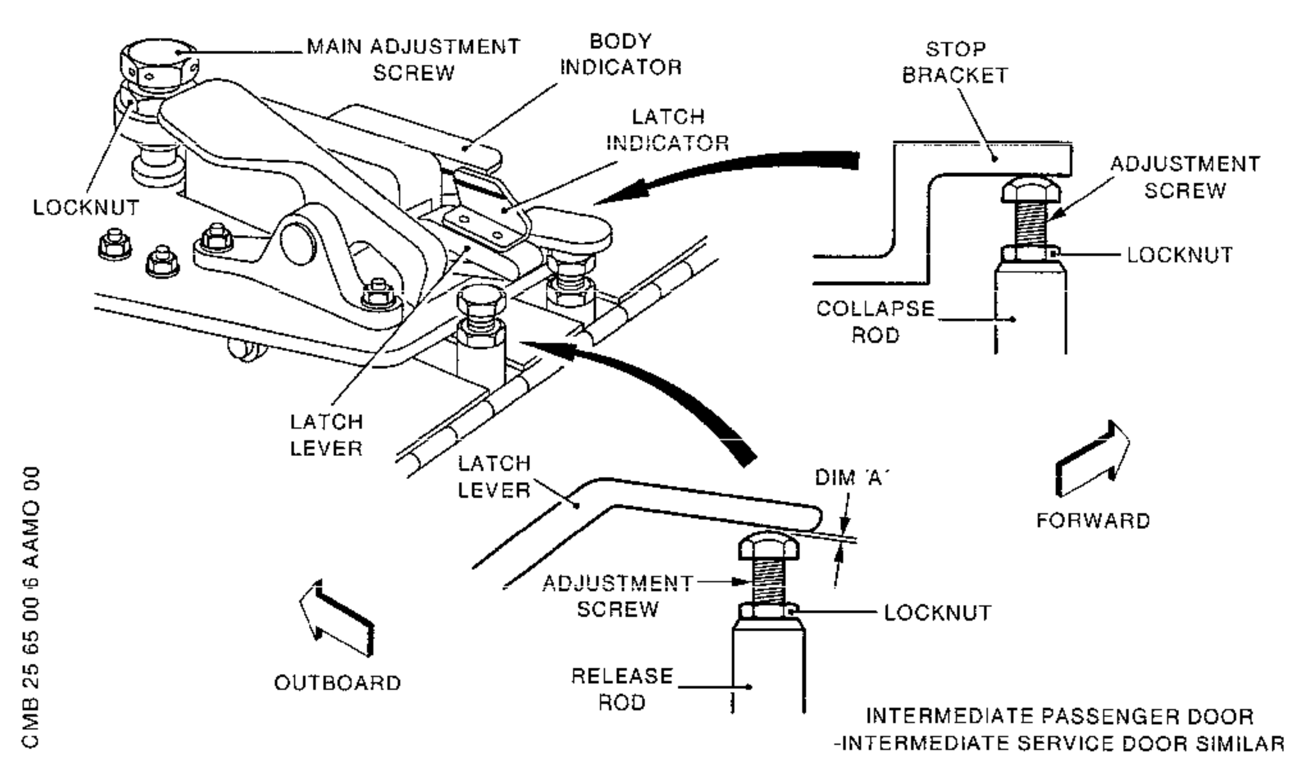
(4) Check that the top of the container is not stuck to the support carriage with paint.

R (5) Check latch lever settings (Ref. Fig. 601)

R (a) Slacken-off the main adjustment screw locknut
R and the main adjustment screw, then release the
R collapse-rod locknut and loosen it's adjustment
R screw. Torque tighten the main adjustment screw
R to 10 lbf in (0.113 mdaN) then torque tighten
R the locknut to 80 lbf in (0.904 mdaN).

R CAUTION: THE CONTAINER MUST BE HELD IN POSITION
R WHILE TIGHTENING THE ADJUSTMENT SCREW.

R DO NOT OVERTORQUE THE MAIN ADJUSTMENT
R SCREW AS OVERTIGHTENING COULD JAM THE
R MECHANISM.



R Latch Lever Setting
Figure 601

(b) Turn the adjustment screw of the collapse-rod until it just contacts the stop bracket, without end play. Continue for one complete turn, to ensure that the rod is seated at its lower end. Then, with the adjustment screw held firmly, tighten the locknut. Recheck the setting.

NOTE: It is important that the lower end of the collapse-rod is clear of dirt and grease etc., before carrying out the check at para. 5(b).

R (c) Ensure that the red lines on the indicator latch
R and the indicator body are aligned, and that the release rod is seated upon its nylon guide blocks. Check the gap (dimension A) between the adjustment screw and the latch lever is between 0.195 and 0.225 in (4.95 and 5.71 mm) on the intermediate passenger door and between 0.125 and and 0.155 in (3.17 and 3.93 mm) on the intermediate service door. Secure the adjustment screw locknut. Recheck the setting.

(6) If settings at para. 5(b) and (c) are incorrect proceed as follows.

(a) Release the collapse-rod locknut and loosen the adjustment screw.

(b) Ensure that the release rod is clear of the latch lever.

(c) Reset the main adjustment screw and the collapse-rod Ref. para.5 (a) and (b).

(d) With the release rod firmly down on its blocks and the latch lever fully down set the release rod adjustment screw to give a clearance, as detailed in Para.5(c). Secure the adjustment screw with the locknut and recheck the setting.

(7) Check the arming and disarming feature.

(a) With the door closed, remove the locking pin from the girt flap arming lever and the lock-out pin from the girt arm.

(b) Move the lever to "ARMED" and ensure that the shoot bolts engage the girt arms.

(c) Press the disarm button to eject the door outer handle and trip bolt. Check that the pressure required to depress the button is within the range 15 to 20 lbf (8.6 to 9.1 kgf).

(d) Rotate the door outer handle and check that the shoot bolts disengage from the girt arms and that the arming lever moves to DISARMED.

(e) Check that the girt flap is securely latched to the container by its spring clip.

(f) Close the door, and with the door outer handle flush in its recess, check that the disarm button has returned to its fully extended position, flush with the outer skin.

NOTE: It is important that the disarm button returns to the flush position.

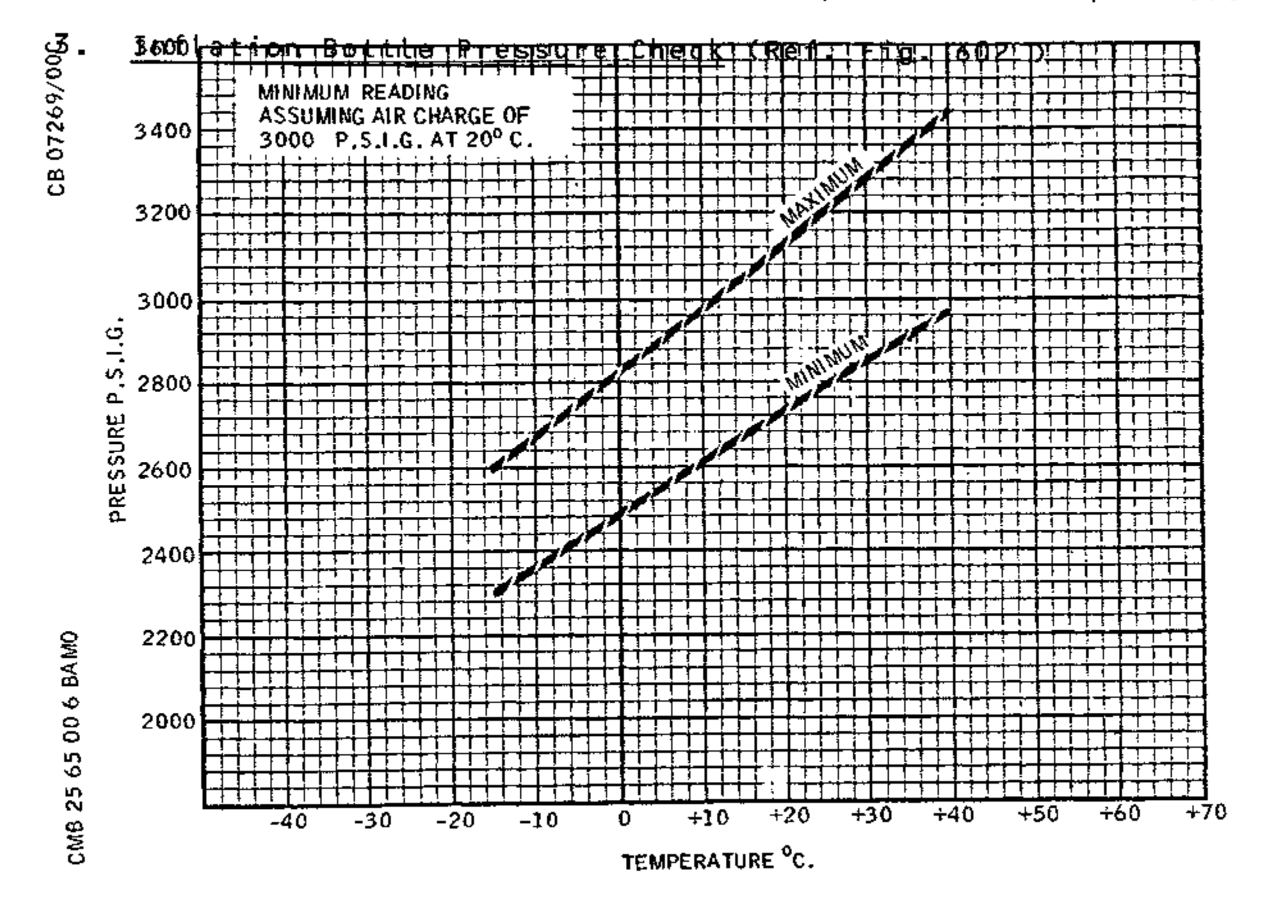
(g) Refit the locking pin to the arming lever and the lock-out pin to the girt arm.

WARNING: DO NOT ATTEMPT TO PULL THE DOOR OPEN

FROM OUTSIDE UNTIL IT HAS BEEN ASCERTAINED THAT THE ARMING LEVER IS AT DISARMED.

R (8) Check the inflation bottle pressure (Ref.para.3).

3. Inflation Bottle Pressure Check (Ref. Fig. 602)



R

Temperature/Pressure Chart
Figure 602

WARNING; THE INFLATION BOTTLE MUST NOT BE RECHARGED OR TOPPED-UP IN THE AIRCRAFT.

A. Check

(1) Locate the inflation bottle stowage for the door slide/raft escape system on the forward side of the adjacent toilet.

(2) Check that the inflation bottle pressure gauge, viewed through the inspection window in the hinged lid in the cover, shows a reading in accordance with the temperature/pressure chart.

SLIDE/RAFT PACKS - REMOVAL/INSTALLATION

1. General

A slide/raft pack is fitted to both the intermediate passenger and service doors. Each pack comprises the slide/raft complete in its collapsible container with girt flap, and is secured by a catch to a carriage mechanism on the door. Inflation of the slide/raft is made from an adjacent bottle and firing mechanism, and the air supply pipe from the bottle is connected to the bottom of the container. Removal procedures are given both for when the pack is contained on the door and following deployment.

2. Pack (Passenger or Service Door)

A. Equipment and Materials

DESCRIPTION	PART NO.
R Safety pin, arming lever	-
Locking wire, non-corrodible steel 0.028 in (0.7 mm) dia	-

B. Remove Contained Pack (Ref. Fig. 401)

(1) Ensure against inadvertent firing of the inflation air bottle by inserting the lock-out pin in the forward girt arm or by removing the air bottle.

NOTE: The girt arm lock-out pins are stowed on the inner face of the lower amenities stowage door on the LH side of the centre vestibule.

(2) Disconnect the air supply hose from the bottom of the container and from the doorway and remove it.

(3) Fully close the door.

(4) Move the arming lever on the girt flap to "DISARMED" and insert the safety pin.

R

R (5) Fold up the console flap on the door to gain access
R to the carriage mechanism. Manually support the
R pack and release the pack container from the cam

catch by depressing the release lever.

CAUTION: DO NOT ALLOW THE PUSH RODS IN THE TOP OF THE CONTAINER TO LIFT AS THIS MAY RESULT IN THE RELEASE OF THE PACK.

(6) Lower the pack to the floor and restrain the push rods with suitably placed self-adhesive tape.

(7) Remove the pack from the aircraft.

C. Install Pack (Ref. Fig. 401)

CAUTION: IF EITHER OF THE ADJOINING AREAS OF THE CONTAINER OR CARRIAGE MECHANISM HAVE RECENTLY BEEN PAINTED, ENSURE THAT THE PAINT IS THOROUGHLY DRY BEFORE FITTING THE CONTAINER TO THE CARRIAGE. DO NOT ATTEMPT TO PAINT THESE AREAS WITH THE CONTAINER IN-SITU: WET PAINT WILL CAUSE ADHESION OF THE CONTAINER AND CARRIAGE MECHANISM, PREVENTING RELEASE OF THE CONTAINER.

NOTE: The door to which the pack is to be fitted must be fully equipped, rigged and furnished (Ref. 52-11-11).

(1) Before installing the pack in the aircraft, check that:

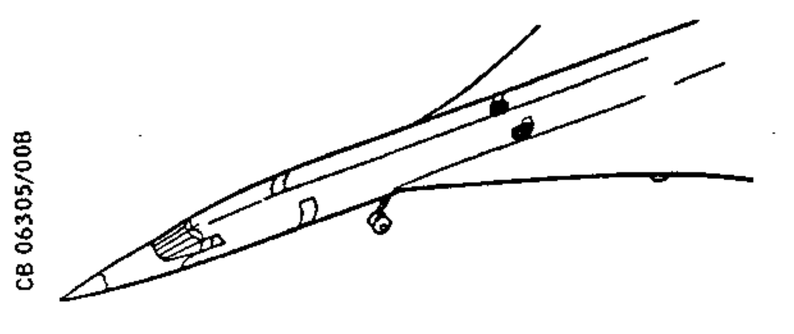
(a) The arming handle on the pack girt flap is set to the disarmed position and is secured with the safety pin.

(b) The girt flap is secured flat against the container with the spring clip. If it is not, remove the safety pin from the arming lever and set the lever to "ARMED". Push the flap back against the container and set the arming lever to "DISARMED"; the flap should then be locked to the container. Fit the safety pin.

(c) The top of the rods are restrained from movement by adhesive tape.

(d) The interference lever is not protruding through the girt flap signifying incorrect assembly of the container release rod.

R
R
R



CB 06305/00B

CONSOLE FLAP

CARRIER MECHANISM

DOOR

SPRING CLIP

PACK CONTAINER

SAFETY PIN

GIRT ARM

AIR SUPPLY HOSE

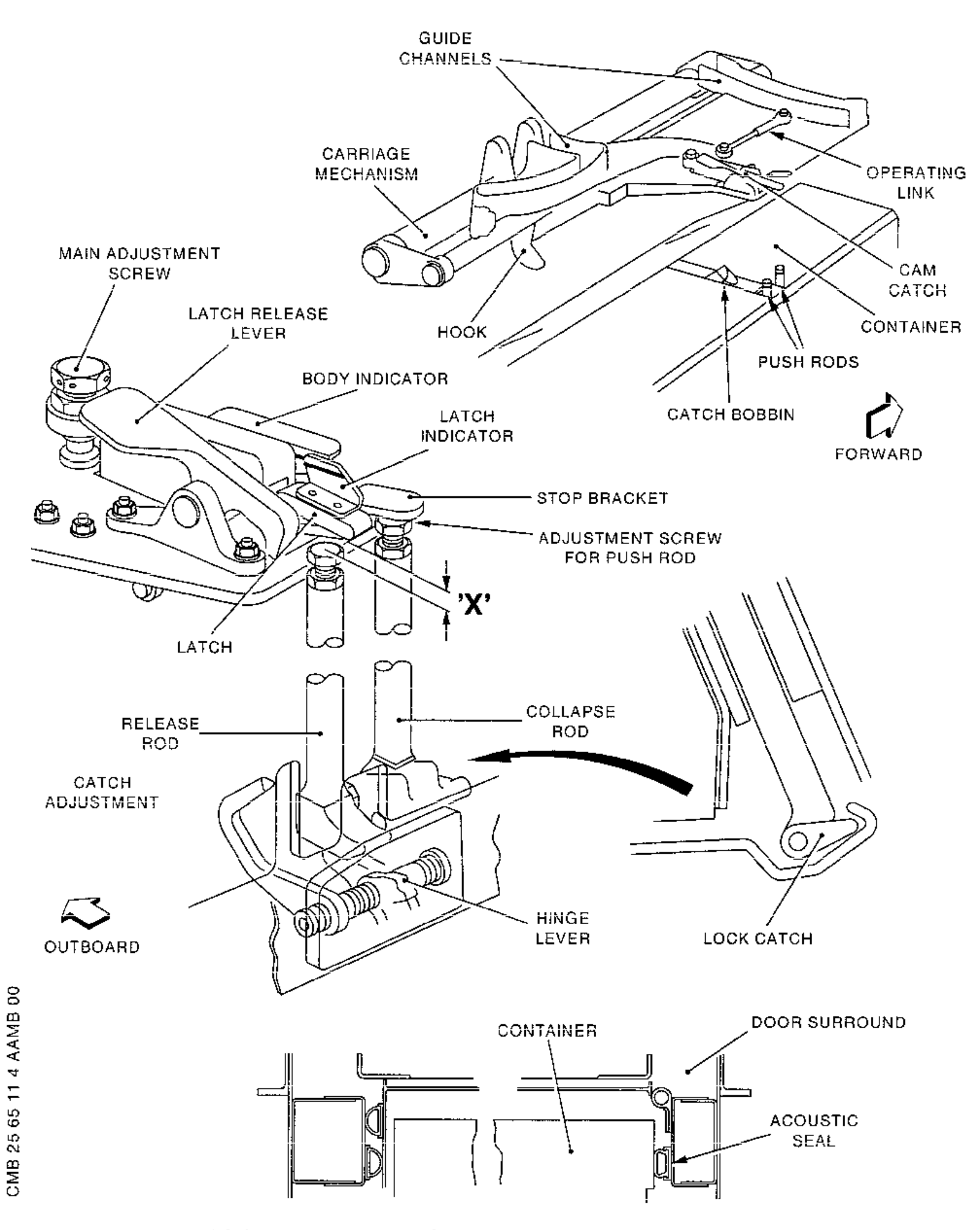
ARMING LEVER

GIRT FLAP

CMB 25 65 11 4 AAMA

Slide/Raft Contained Pack - Installation
(Sheet 1 of 2)
Figure 401

R

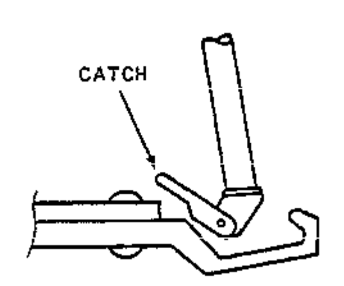


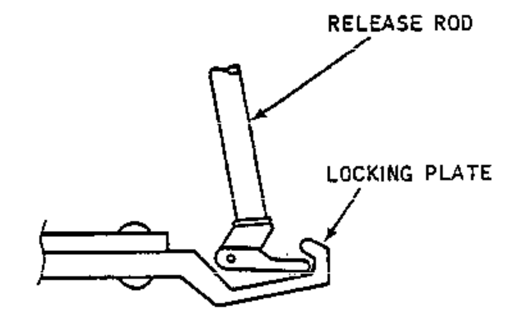
PRINTED IN ENGLAND

Slide/Raft Contained Pack - Installation
(Sheet 2 of 2)
Figure 401

R

R B (e) Prior to installing the pack it is essential to ensure that the container lock catch and plate are correctly assembled. (Ref. Fig.401A). If the foot is not engaged the container release rod can be raised sufficiently to permit rotation of the foot so that it may be correctly located in the locking plate.





INCORRECT CORRECT

CIC 0099/00A

Slide Container Lock Catch Assembly
Figure 401A B

(2) Ensure that the girt arms are still in the vertical position and locked. Check that the lock-out pin is still fitted to the forward arm or the air bottle removed.

B

(3) Remove the inside acoustic seal fitted between the pack and the door surround furnishing by sliding it out of its retainer.

(4) Lift and fold up the console flap on the door to gain access to the carriage mechanism, and:

(a) Set the cam catch and latch in the locked
R position.

(b) Unscrew the main adjustment screw above the catch as far as practicable.

(c) Lift the latch to release the cam catch and turn the catch to the open position.

(5) Remove the adhesive tape restraining the container push rods and screw in the adjustment screw for each rod to its limit.

(6) Fit the pack to the carriage:

(a) With the door closed raise the pack and engage the two hooks on the carriage in the hook blocks in the top panel of the container.

(b) Keeping the hooks engaged, lift the inboard face of the container and engage the catch bobbin in the cam catch, and the spigot on the underside of the carriage in the slot in the top of the container.

(c) Push the container upward and outward to turn the cam catch and close it round the bobbin. Lightly press down on the latch and apply downward pressure on the main adjustment screw to lower the catch assembly sufficiently to permit the latch to engage and lock the cam catch.

R AFTER SB 25-083

R Check that the red lines on the indicator latch
R and the indicator body are aligned.

R

(7) Adjust the carriage mechanism:

(a) Lightly screw down the main adjustment screw while gently easing the container up so that it fits snugly and firmly without play or slackness beneath the carriage. Torque-tighten the screw to 10 lbf in (0.113 mdaN) and lock the screw with the locknut, torque-tightened to 80 lbf in (0.904 mdaN). Secure the locknut with wire to the catch body.

CAUTION: THE CONTAINER MUST BE MANUALLY HELD IN POSITION WHILE TORQUE-TIGHTENING THE ADJUSTMENT SCREW. ON NO ACCOUNT MUST THE CONTAINER BY LEVERED INTO POSITION AS THIS CAN DAMAGE AND/OR DISTORT IT.

DO NOT OVERTORQUE THE ADJUSTMENT SCREW AS EXCESSIVE OVERTIGHTENING CAN JAM THE CATCH.

(b) Carefully open the door and check the action of the two rollers beneath the main hinge arm that run in the guide channels. During the hinge arm movement check that there is no tendency for the rollers to jam. Ensure that when closing the door the rollers enter the guide channels easily. If necessary, disconnect and adjust the operating link to give the balance of adjustment required to achieve the two conditions. Reconnect the link and tighten the locknut.

(8) Open the door and fit the inside acoustic seal by sliding it back in its retainer on the door surround furnishing. Close the door and check that the seal abuts the door (Ref. Fig. 401); also check that the gap between the container and the door surround furnishing is not less than 0.40 in (10.16 mm). If necessary, adjust the door surround furnishing to give the required gap (Ref. 52-11-11, Removal/ Installation).

(9) Adjust the push rods:

(a) Adjust the screw of the container collapse push rod until it just contacts the abutment bracket on the carriage. Continue to screw for one complete turn to ensure that the rod is seated at its lower end, then secure the screw with its locknut.

(b) With the release push rod firmly down on its blocks and the latch lever fully down, set its adjustment screw to give a clearance (Dimension 'X') with the latch of between 0.195 and 0.225 in (4.95 and 5.71 mm) on the intermediate passenger door and 0.125 and 0.155 in (3.17 and 3.95 mm) on the service door.

(10) Fully close the door and set the arming lever on the girt flap to "ARMED". Check that the shoot bolts have unimpeded entry as they engage the girt arms. No adjustment should be necessary to meet this condition but if adjustment is required the girt arm stop shim thickness is to be adjusted to give the correct inboard/outboard position of the girt arms (Ref. 25-65-13).

(11) Connect the hose to the container bottom panel and to the swivel coupling by the doorway.

(12) Open and close the door and check that during door movement there is no torsioning or kinking of the hose.

(13) Check the operation of the disarming mechanism:

(a) Close the door.

(b) Set the arming lever on the girt flap to "ARMED".

(c) Pull out and rotate the door external handle and check that the arming lever moves to "DISARMED".

(d) Reset the door external handle.

(e) Secure the arming lever at "DISARMED" with the safety pin.

<u>CAUTION:</u> DO NOT LET THE DOOR SWING OPEN DURING THIS CHECK, IF THE DISARMING MECHANISM FAILED TO OPERATE THE PACK WOULD BE RELEASED.

<u>NOTE:</u> If the disarming mechanism fails to operate satisfactorily refer to 25-65-12, Adjustment/Test for adjustment procedure.

(14) Lower the door console flap and check that all door furnishings and seals are fitted.

NOTE: If the installation follows the removal of a deployed pack the discharged inflation bottle must be replaced by a fully charged bottle (Ref. 25-65-14).
Refer to 25-65-00, Adjustment/Test for a function check of the bottle firing mechanism.

D. Remove Deployed Pack (Ref. Fig. 402)

(1) Switch off slide/raft lighting system.

(2) Deflate the slide by operating the deflation plug.

(3) Release the slide from the aircraft:

(a) Ensure that there is no equipment or object beneath the slide that may damage it when lowered from the doorway.

(b) Lift the flap on the slide door sill apron where marked with diagonal yellow stripes to reveal the slide disconnect handle.

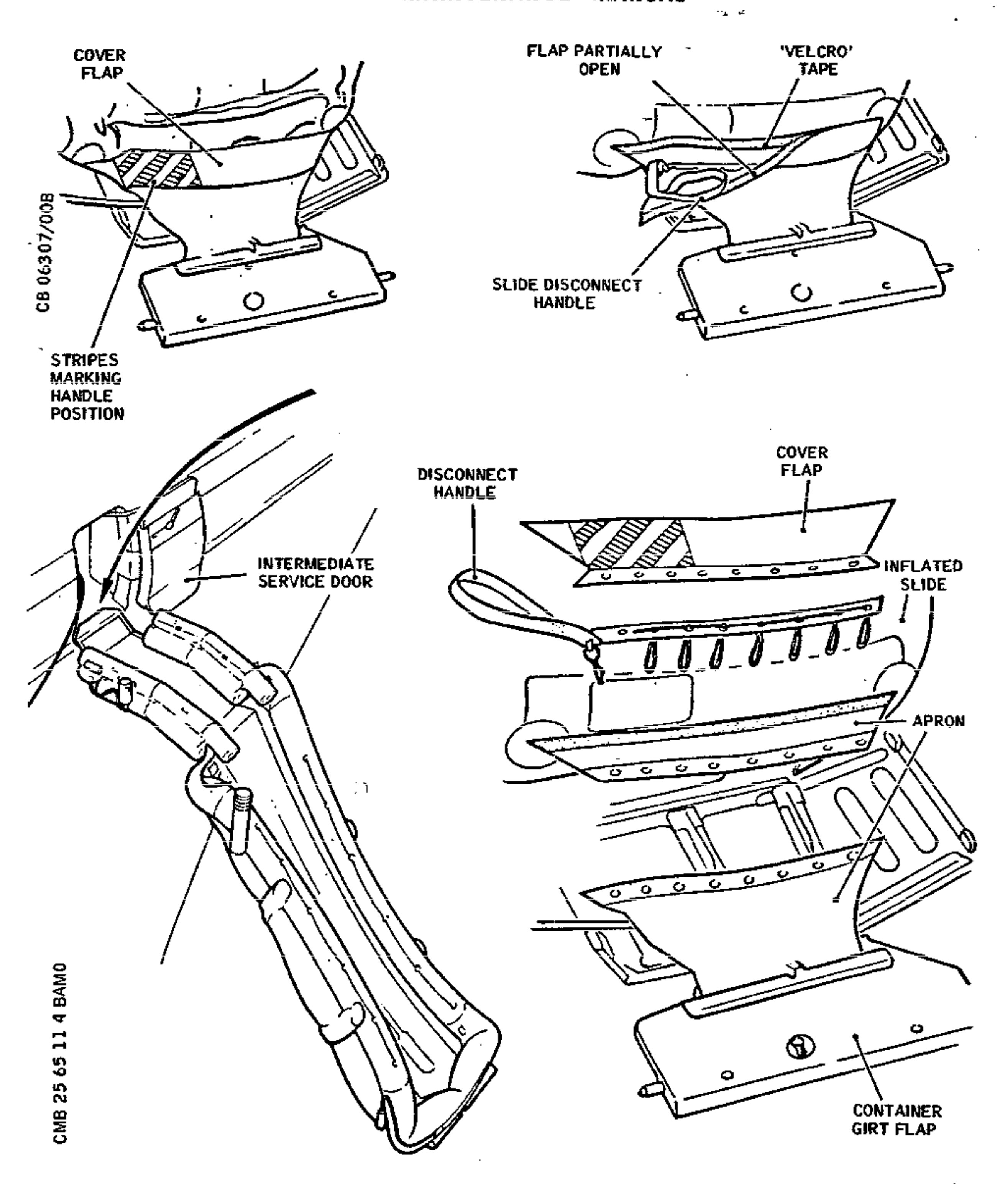
(c) Pull the disconnect handle in an upward direction to release the lacing that fastens the slide to the container; lower the slide to the ground.

(4) Disconnect the hose from the container bottom panel and from the doorway, and remove it.

(5) Remove the container by retracting the shoot bolts from the girt arms.

(6) Lower the container to the ground.

(7) Return the girt arms to the vertical position and fit the lock-out pin.



Slide/Raft (Deployed) - Disconnection
Figure 402

DISARMING MECHANISM - REMOVAL/INSTALLATION

1. General

The intermediate passenger and service doors each have a disarming mechanism that prevents the slide/raft or slide system from operating when the door is opened using the door external handle. The mechanism is similar for both doors and comprises two separate assemblies; one in the door (Ref. 52-11-11) and the other on the door surround structure which is dealt with by this procedure.

2. Disarming Mechanism

A. Equipment and Materials

DESCRIPTION	PART NO.
Aeroshell grease No.16 (Ref.20-30-00 No. 51)	
Torque spanner range 0-50 lbf in (0-0.56 mdaN)	-
Viton sealant PR1720X (Ref. 20-30-00, No. 371)	-

B. Removal (Ref. Fig. 401)

WARNING: DO NOT OPEN THE DOOR USING THE DOOR INNER HANDLE WHEN THE ARMING LEVER ON THE GIRT FLAP IS IN THE ARMED POSITION AS THIS WILL OPERATE THE SYSTEM AND RELEASE THE PACK, FIRST ENSURE THAT THE LEVER IS IN THE DISARMED POSITION.

(1) Remove the furnishing trim at the side of the door as necessary to permit access to the disarming mechanism.

(2) Remove the shear pin securing the torque tube to its return spring assembly; lift and remove the spring assembly from the support bracket.

R (3) Remove the two bolts securing the outboard end of the torque tube and remove the lift arm and torque tube.

(4) Remove the slotted nut securing the flanged spigot and remove the spigot and spacer.

(5) Remove the three bolts securing the attachment bracket and remove the bracket and stop pad.

(6) Remove the four bolts securing the bearing bracket and remove the bracket.

C. Install (Ref. Fig. 401)

NOTE: Assemble all moving parts with Aeroshell grease No. 16.

Assemble static parts using Viton sealant as instructed in 20-22-12.

(1) Locate the bearing bracket on the mounting angles so that the bearing is nearer the door and secure it with the four bolts torque tightened to between 40 and 45 lbf in (0.45 and 0.51 mdaN).

(2) Fit the attachment bracket to the door surround frame with the two hexagonal head bolts and nuts and with the countersunk head bolt and stop pad. Do not fit shims beneath the stop pad at this stage. Torque tighten the two nuts to between 12 and 15 lbf in (0.135 and 0.17 mdaN).

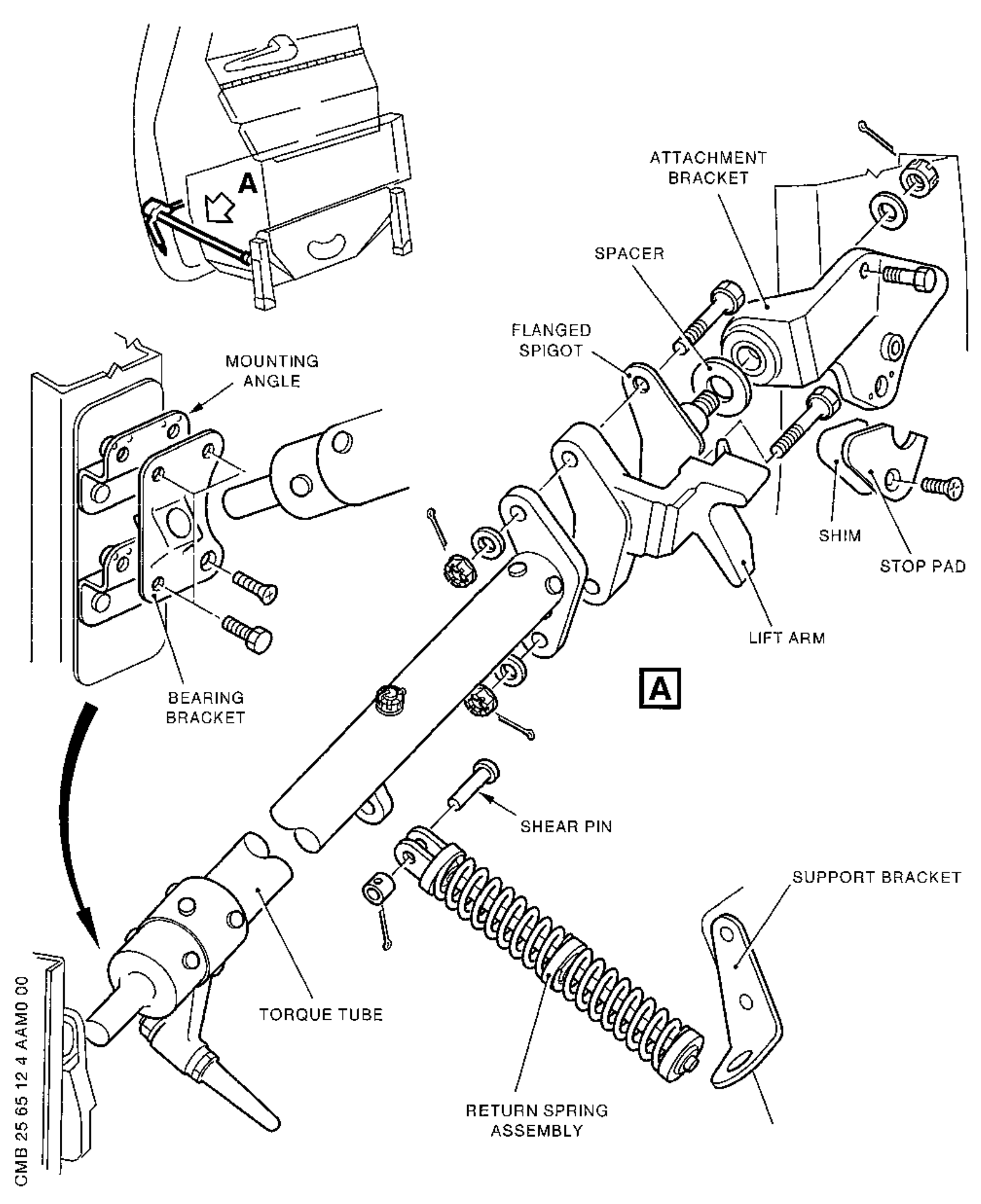
(3) Fit the flanged spigot together with the spacer to the attachment bracket and secure it with the washer and slotted nut. Torque tighten the nut to between 25 and 30 lbf in (0.28 and 0.34 mdaN) and secure it with a split pin.

(4) Insert the torque tube in the bearing bracket and bolt the outboard end together with the lift arm to the flanged spigot with two bolts, washers and nuts. Torque tighten each nut to between 25 and 30 lbf in (0.28 and 0.34 mdaN) and secure them with split pins.

(5) Locate the spring assembly in the support bracket and secure the fork-end to the torque tube with the shear pin, washer, collar and split pin.

(6) Check and adjust the disarming mechanism (Ref. Fig. 402)

(a) With the door closed, depress the disarm button on the door outer handle to eject the handle from its seating and to extend the trip bolt from the

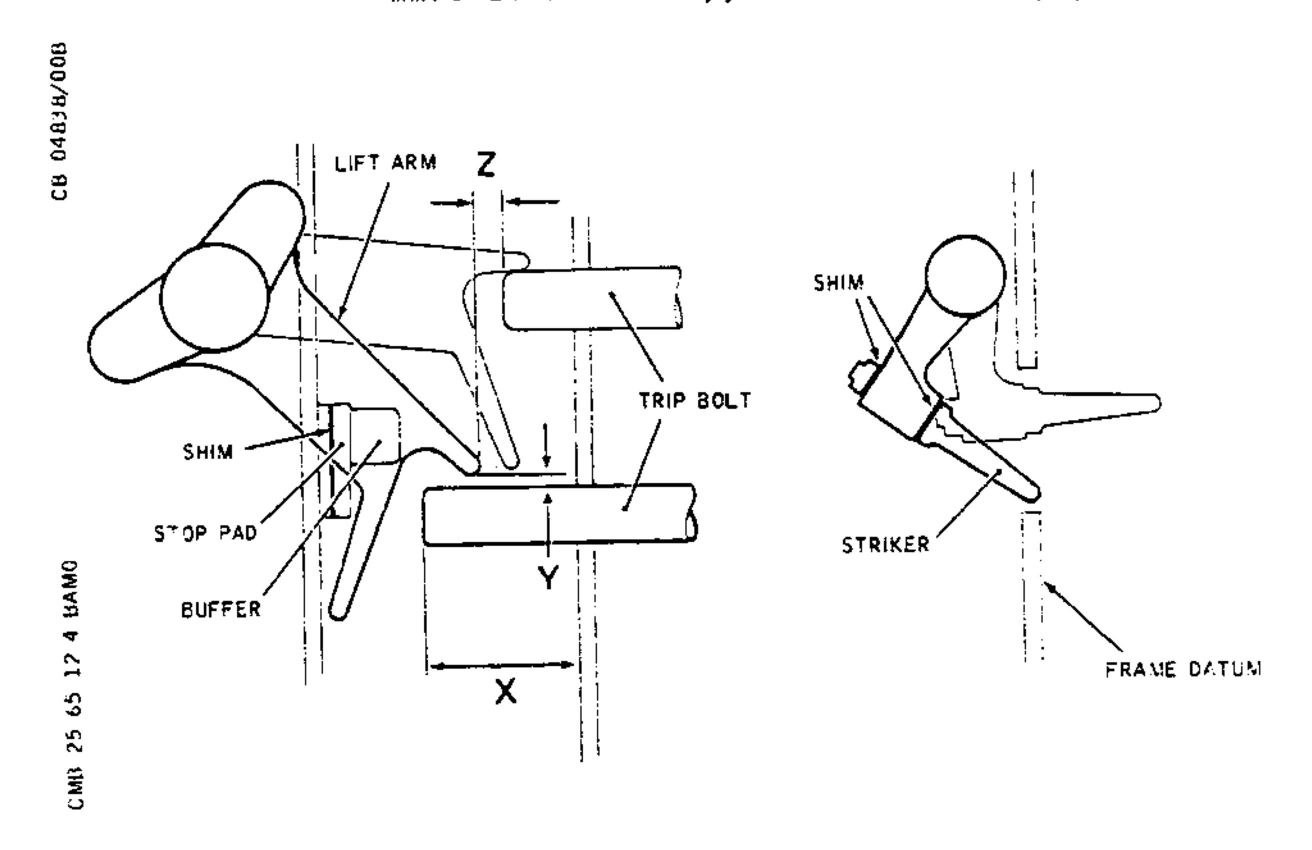


R

Disarming Mechanism - Installation
Figure 401

door. Check that the trip bolt protrudes from the door (dimension 'X') between 1.29 and 1.31 in (32.8 and 33.3 mm). If necessary, adjust the length of the trip bolt as detailed in 52-11-11, Removal/Installation.

(b) With the trip bolt extended and the lift arm resting on its stop pad, check that the clearance between the trip bolt and lift arm (dimension 'Y') is between 0.050 and 0.15 in (1.27 and 3.81 mm). If necessary, remove the stop pad and



R

Adjustments
Figure 402

adjust the thickness of shims to obtain the required clearance. A maximum of three shims may be used.

(c) Open the door using the door outer handle and check that the lift arm resets the trip bolt to the retracted position and that the disarm button on the door outer handle resets flush with the skin.

(d) With the door open, depress the disarm button to fully extend the trip bolt. Close the door and check that the trip bolt is reset to the retracted position by the lift arm and that the disarm button resets flush with the skin.

(e) Open and close the door using the door inner handle and check that the clearance between the retracted trip bolt and the lift arm (dimension 'Z') is between 0.20 and 0.25 in (5.08 and 6.35 mm). The clearance should be automatic, but if necessary adjust the trip bolt length within the required tolerances.

(f) With the lift arm resting on the stop-pad (door lowered position) check that the tip of the striker is flush with the datum face of the frame. If necessary, achieve this setting by transferring shims from one side of the striker arm to the other. Total shim thickness must not exceed 0.12 in (3.0 mm). Torque tighten the striker nut to between 12 and 15 lbf in (0.135 and 0.17 mdaN) and secure with a split pin.

(g) With the door closed and the arming lever set to DISARMED, operate the door outer handle to lift the door. Check that as the door rises, the trip bolt engages the lift arm and rotates the torque tube and striker. Check that the striker moves the lever within the girt arm fully to the inside edge of the girt arm. Then as the striker returns to its position, flush with the bulkhead, the girt arm lever returns to its original position.

(h) Repeat operation (g) several times to ensure satisfactory operation.

(i) With the door closed set the arming lever on the girt flap to ARMED so that the shoot bolts engage the girt arms.

(j) Operate the door outer handle to lift the door and check that the arming lever has moved to DISARMED.

(7) Refit the furnishing trim.

GIRT ARMS (INTERMEDIATE DOORS) - REMOVAL/INSTALLATION

1. General

Two girt arms are fitted in each doorway. Each arm pivots on a floor fitting and has a spring-loaded locking lever that locks it in the vertical position. It can be released by depressing the lever with a finger inserted in the shoot-bolt hole; the arm can then be hinged outwards. Each arm is fitted with a ratchet and pawl which, when the arm is lowered, retains it in the lowered position until manually released. The shaft on which the arm pivots is secured to the bottle firing mechanism on the forward arm, and to the arm return spring on the rear arm.

2. Girt Arms (Ref. Fig. 401)

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque spanner, 0-70 lbf in. R (0-0.79 mdaN)	-
Aeroshell grease No.16 (Ref. 20-30-00, No.51)	-

B. Removal

WARNING: BEFORE REMOVING EITHER GIRT ARM FIRST REMOVE
R THE INFLATION BOTTLE (REF. 25-65-14, Removal/
R Installation).

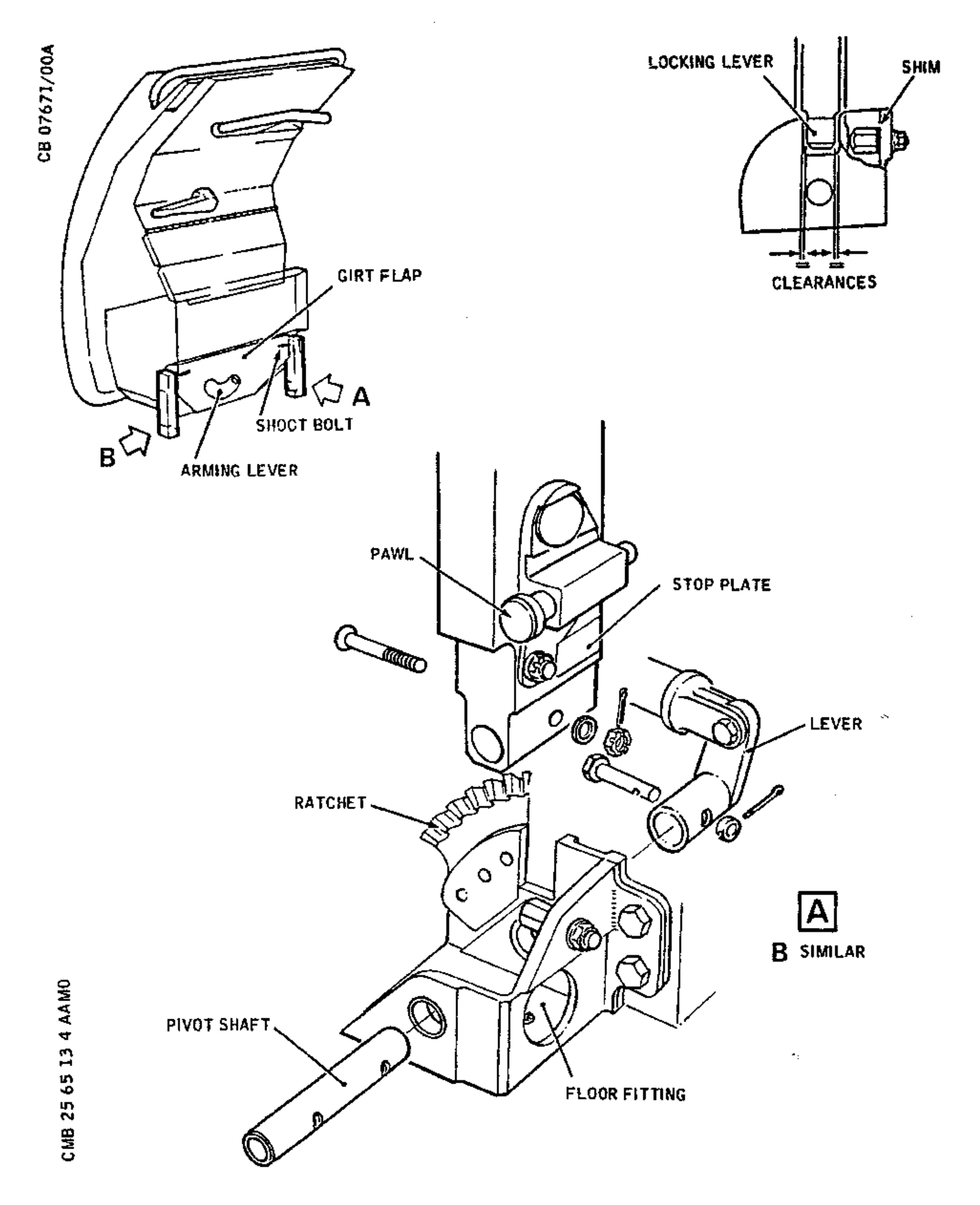
(1) Remove the shear pin securing the lever to the pivot shaft.

(2) Remove the bolt securing the girt arm to the pivot shaft.

(3) Withdraw the pivot shaft and remove the girt arm.

C. Installation

NOTE: Assemble all moving parts with Aeroshell grease No.16.



Girt Arms (Intermediate Doors) - Installation
Figure 401

R

(1) Fit the girt arm to the floor fitting with the pivot shaft and secure the arm to the shaft with the bolt, washer and nut. Torque tighten the nut to between 12 and 15 lbf in (0.135 and 0.17 mdaN) and secure it with a split pin.

(2) Secure the lever to the pivot shaft with the shear pin, collar and split-pin.

(3) Check and, if necessary, adjust the position of the girt arm:

(a) Fully close the door and set the arming lever on the girt flap to "ARMED" and check the alignment of the shoot bolt with the slotted hole in the girt arm. The girt arm must be positioned by its stop to give unimpeded entry to the shoot bolts. If necessary, adjust the stop by fitting shims up to a maximum of 0.10 in (2.5 mm) thickness. Torque tighten the stop nut to between 60 and 70 lbf in (0.67 and 0.79 mdaN).

<u>CAUTION:</u> DO NOT OPEN THE DOOR USING THE DOOR INNER HANDLE WHEN THE GIRT FLAP ARMING HANDLE IS SET TO THE ARMED POSITION OR THE SLIDE PACK WILL BE RELEASED FROM THE CONTAINER.

(b) Open and close the door several times, moving the arming lever to "ARMED" each time the door is closed and back to "DISARMED" each time the door is opened, and check that the shoot bolts move easily in and out of the girt arm slots. Check that each time the shoot bolts are withdrawn the lock lever in the girt arm engages in the recess in the floor fitting, and that there is an equal clearance between the sides of the lever and the recess. If necessary, make further adjustment of the girt arm stop to meet these conditions.

(4) Check the operation of the girt arm:

(a) With the door closed, insert a finger in the hole for the shoot bolt in the girt arm and depress the locking lever. Check that the arm is free to pivot outward.

(b) Pivot the arm fully down; open the door and lock it in the fully open position. Check that

the arm is retained down by the ratchet and pawl.

(c) Close the door and then return the arm to the vertical.

NOTE: Failure to comply with the procedure in (b) and (c) may result in serious damage to the automatic firing mechanism.

INFLATION BOTTLE - SERVICING

WARNING: THE INFLATION BOTTLE IS A HIGH PRESSURE AIR VESSEL AND EXTREME CARE MUST BE TAKEN DURING HANDLING TO PREVENT INADVERTENT DISCHARGE. DO NOT RECHARGE OR TOP-UP THE INFLATION BOTTLE ON THE AIRCRAFT.

THE SAFETY PIN MUST BE FITTED TO THE INFLATION BOTTLE AT ALL TIMES, EXCEPT WHEN THE SYSTEM IS ARMED FOR USE.

THE SAFETY RECOIL CAP MUST ALWAYS BE FITTED TO THE BOTTLE VALVE OUTLET WHEN THE BOTTLE HAS BEEN REMOVED FROM THE INFLATION SYSTEM.

CAUTION: AFTER USING THIS PROCEDURE THE BOTTLE MUST BE REPLACED BY AN OVERHAULED AND RECHARGED BOTTLE AS SOON AS THE AIRCRAFT RETURNS TO ITS BASE.

NOTE: When necessary, store in a cool dry atmosphere, away from heat sources and corrosive fumes.

1. General

This topic gives a recharging procedure, for an underpressure inflation bottle, for use as an interim measure away from base where a fully charged bottle is unavailable. The bottle must be removed from the aircraft for charging. It must not be "topped-up", but must first be discharged and then recharged to the desired pressure.

An inflation bottle is potentially dangerous. Apart from explosion risk with over inflation, possible hazards from a sudden uncontrolled air discharge are:

Noise damage to the ears.
Air embolism from blast absorbed through the skin.
Eye damage from blast, dust and debris.
Unrestrained bottle resulting in dangerous projectile.
It is urged therefore, that operators handling the inflation bottle wear ear muffs and goggles/face mask for personal protection.

For complete overhaul and recharging procedure necessary after bottle firing, refer to the appropriate Overhaul Manual.

2. Bottle Charging

A. Equipment and Materials

DESCRIPTION	PART NO.
Adapter, charging	WKA 35680
Protective cap, charging connection	WK 35677
Hose, flexible, charging with 1/4 in. BSP male cone connection	-
Air venting tool	WKA 36013
Filtered, dry air source at -50 deg C dew-point with 10 micron filter and pressure gauge 0-3,200 psi (2.206 hbar)	-
Goggles or face mask	-
Ear Muffs	-
Leak Test fluid AC2 (Ref.20-30-00, No.)	-
Corrosion resistant steel wire 0.031 (0.8 mm) dia	DTD 189
Weighing apparatus measuring in units of 0.125 oz (3.54 gm) max. up to 35 lb (16 Kg) approximately	-

B. Charge Bottle (Ref. Fig. 301)

(1) Remove the inflation bottle from the aircraft as detailed in 25-65-14, Removal/Installation.

NOTE: Check that the bottle safety pin is fitted in
R front of the firing cable collar
R (Ref. Fig. 302) and that the safety recoil
R cap is fitted to the bottle aperture.

(2) Securely restrain the bottle by strapping it to a rack or by similar means. Remove the protective cap from the bottle charging connection and fit the air venting tool. Slowly turn the screw on the tool to depress the valve, to gradually discharge the air from the bottle until the bottle is empty and the gauge reads zero. Remove the venting tool and

check that the bottle has reached the tare weight shown on it.

NOTE: Weight quoted does not include recoil cap or safety pin.

(3) Ensure that the safety recoil cap is fitted to the outlet connection and the safety pin to the bottle
R valve (Ref. Fig. 302) and accurately weigh the bottle assembly. After noting the weight ensure that the firing cable is correctly fitted.

NOTE: When refitting the safety recoil cap ensure that all threads are engaged; torque-tighten to 30 lbf in (0.34 mdaN).

(4) Fit the charging adapter to the charging connector.

(5) Fit a flexible charging hose with a 1/4 in.BSP male cone connection to the charging adapter.

(6) Connect the charging hose to a filtered dry air source and immerse the inflation bottle in water up to the neck.

NOTE: Do not suspend the bottle assembly from the charging line.

(7) Introduce air slowly into the inflation bottle to prevent excessive heat rise until the charging line pressure is approximately 100 psi (7 kg sq cm) above nominal charging pressure (Ref. Fig. 301).

NOTE: The charging rig should contain a pressure relief valve set to the pressure required.

(8) Remove the air charging source.

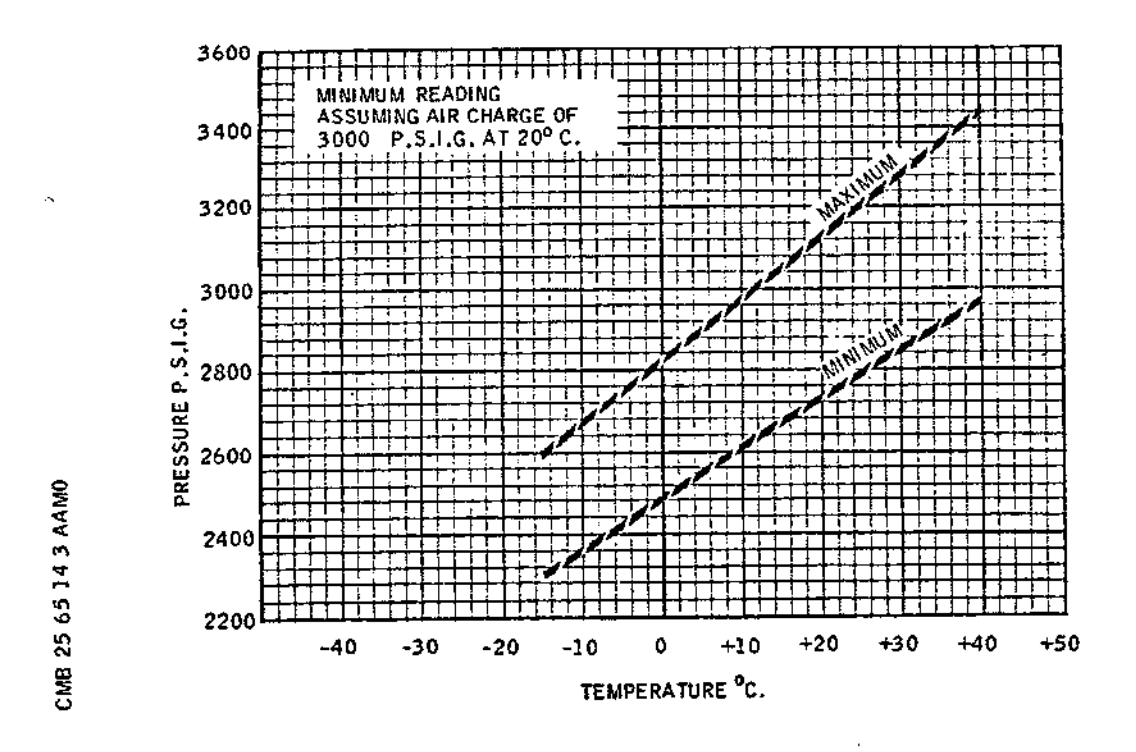
(9) Replace the charging adapter with cap WK 35677 and remove the bottle from the water tank.

(10) Check weigh the bottle assembly, making allowance for the weight of the safety recoil cap and the safety pin :

NOTE: Full weight of bottle is tare weight plus weight of air charge. Weight of air charge for bottle WKA 36048 or WKA 36052 is 5lb.14oz. + 0-0.215 oz.

CB 08488/00B

SAFETY PIN
SAFETY OUTLET
GAUGE
SAFETY RECOIL CAP
PROTECTIVE CAP
CHARGING CONNECTION
INFLATION BOTTLE
OUTLET CONNECTION



CMB 25 65 14 3 AAM0

R

Inflation Bottle Charging
Figure 301

CB 09524/00A

CMB 25 65 14 3 AFMO

R Inflation Bottle Safety Pin - Installation
Figure 302

(a) If the charge is underweight, recommence the charging process as from operation (6).

(b) If the charge is overweight fit the air venting tool WKA 36013 and slowly turn the centre screw to depress the valve and bleed off the excess air as described in operation (2).

(c) Remove the air venting tool or charging adapter and refit the charging connection cap.

(11) Apply leak test fluid and check carefully for leaks at the following connections :

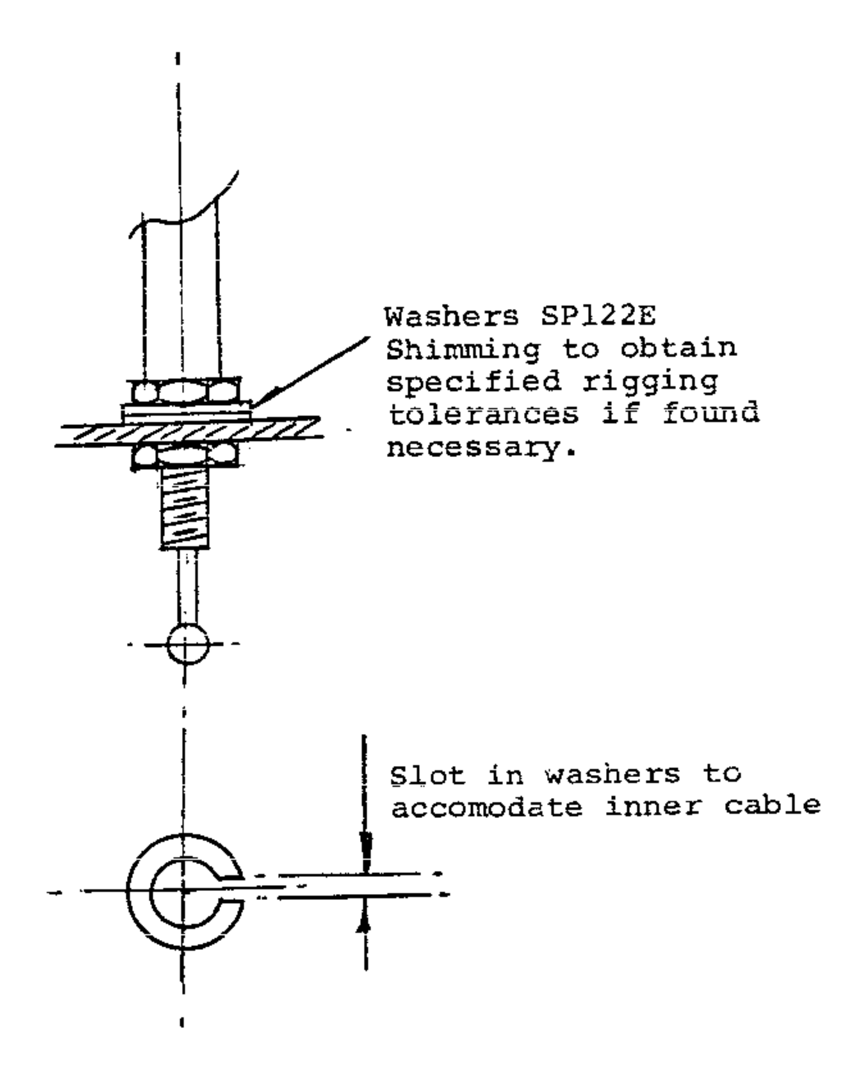
(a) Valve to cylinder.
(b) Gauge to valve.
(c) Safety outlet to valve.
(d) Charging connection valve.

(12) Finally check weigh the complete bottle assembly and wire-lock the charging connection cap. Check that all blanks are fitted.

CAUTION: AT NO TIME IS THE ASSEMBLY TO BE HANDLED WITH THE SAFETY RECOIL CAP REMOVED. DURING CHECK WEIGHING, ALLOWANCE MUST BE MADE FOR THIS ITEM OR THE SCALES BALANCED WITH A SIMILAR SAFETY CAP.

(13) Place the inflation bottle in a transit box. Lock the lid of the box.

(14) Re-install the inflation bottle in the aircraft as detailed in 25-65-14, Removal/Installation.



NOTE:

For rigging procedure and bottle firing mechanism function test see 25.65.00

CMB 25 65 14 3 BAMO

Inflation Bottle Charging
Figure 303

B

INFLATION BOTTLE - REMOVAL/INSTALLATION

WARNING: THE INFLATION BOTTLE IS A HIGH PRESSURE AIR VESSEL AND EXTREME CARE MUST BE TAKEN DURING HANDLING TO PREVENT INADVERTENT DISCHARGE. A SAFETY RECOIL CAP MUST ALWAYS BE FITTED TO THE BOTTLE VALVE OUTLET WHEN THE BOTTLE HAS BEEN DISCONNECTED FROM THE INFLATION SYSTEM.

B NOTE: The safety pin must be fitted to the bottle prior to any
B other action.

1. General

The inflation bottles for the intermediate service and passenger door slide/raft packs are situated on the forward side of the adjacent toilets. Each bottle is connected by cable to the firing mechanism and by air supply pipe to the pack container.

2. Inflation Bottle

A. Equipment and Materials

DESCRIPTION	PART NO.
Safety recoil cap	WK36481
Locking wire, non-corrodible steel 0.28 in (0.7 mm) dia	-
Suitable transit box (for inflation bottle) complete with lockable lid	-

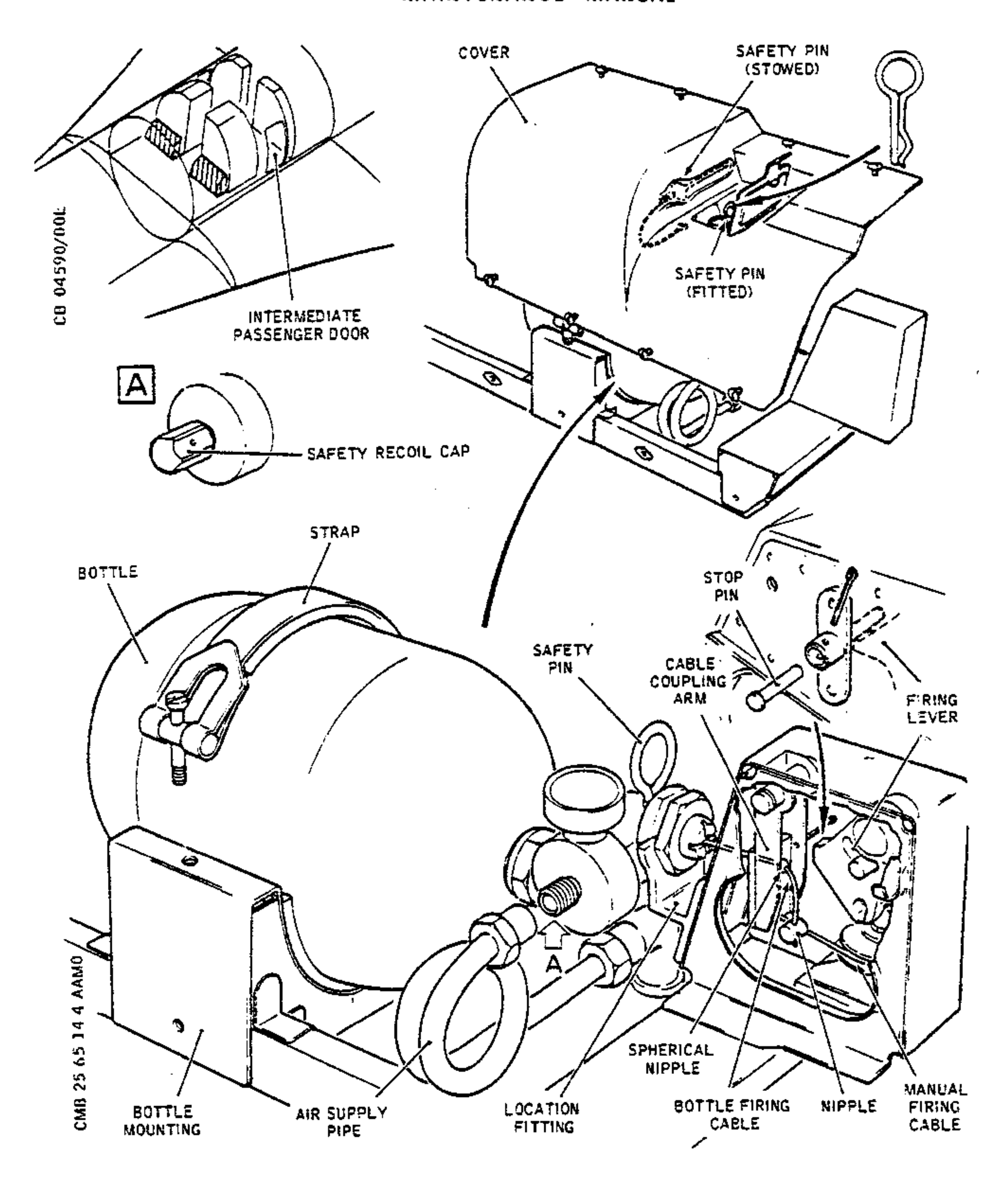
B. Remove (Ref. Fig. 401 and 402)

RB (1) To improve access to intermediate door slide pack
RB inflation bottles, remove adjacent passenger seat
RB (Ref. 25-24-11, Removal/Installation).

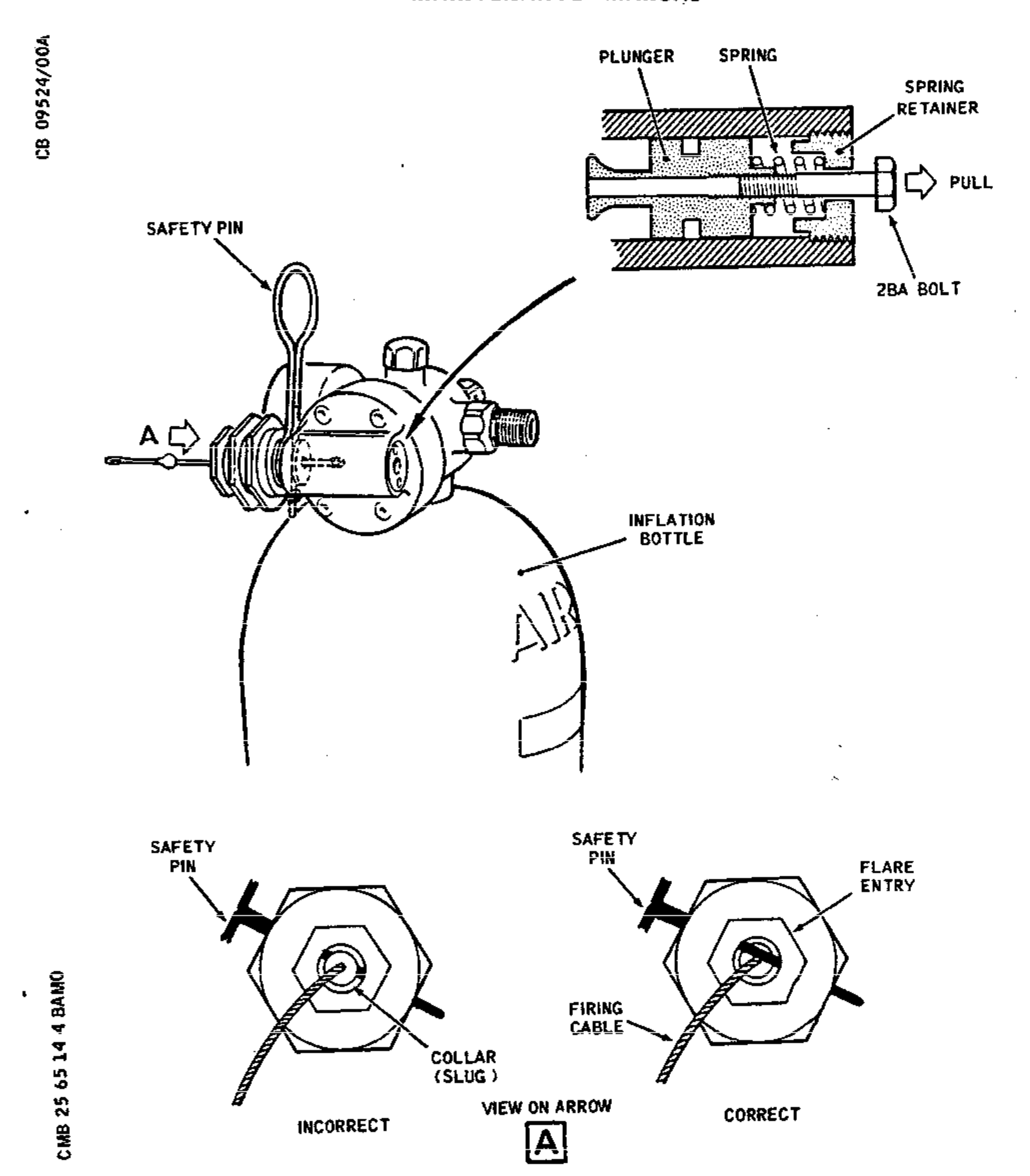
R (2) If the bottle has not been fired, ensure that the arming handle on the girt flap is set to DISARMED and is secured by the safety pin and fit the lock-out pin to the forward girt arm.

R (3) Detach the bottle safety pin from the split-ring and cable on the cover and fit the pin to the bottle.

NOTE: Each bottle has its own safety pin and when a bottle is removed its pin is detached from the cover and returned with the bottle. The pin from the new bottle will subsequently be fitted to the cover split-ring.



Inflation Bottle - Installation
Figure 401



Inflation Bottle Safety Pin - Correct Installation
Figure 402

R

R (4) Remove the cover from the air bottle and firing mechanism.

R (5) Check, with the aid of a small mirror and torch, that the safety pin has been fitted in front of the firing cable collar (Ref. Fig. 402). If the safety pin has not been fitted correctly because the unit is defective, proceed as follows:

(a) Do not attempt to remove the bottle or disconnect the firing cable.

(b) Ensure the safety cap is fitted.

(c) Pass a 2BA bolt through the spring retainer and carefully screw it into the plunger (Ref. Fig. 402).

(d) Pull the bolt to draw the plunger back against the spring, then press the firing cable fully home.

(e) Reinsert the safety pin in the correct position and remove the 2BA bolt.

R (6) Disconnect the bottle firing cable from the firing lever and the cable coupling arm:

(a) Remove the stop pin from the mounting bracket.

(b) Move the firing lever towards the cable coupling arm and disconnect the cable from the firing lever.

(c) Remove the cable retaining split-pin from the cable coupling arm.

(d) Slacken the manual emergency firing cable at the adjuster sufficiently to free the bottle firing cable from the cable coupling arm and withdraw the cable through the arm.

R (7) Disconnect the pipe from the bottle. Fit a blank to the open end of the pipe and fit the safety recoil cap to the bottle aperture, first ensuring that the diametrically opposed small-diameter holes in the cap are unobstructed.

<u>NOTE</u>: When fitting the safety recoil cap ensure that all threads are engaged. Torque tighten to 30 lbf in (0.34 mdaN).

R (8) Release the strap securing the bottle to its mounting and lift the bottle clear of mounting and location bracket.

R (9) Place the bottle in the transit box, lock the lid and remove it from the aircraft.

NOTE: The bottle must be held rigidly in the box to prevent damage or inadvertent discharge.

C. Install (Ref. Fig. 401)

(1) Before installing the inflation bottle check the firing
B mechanism provides cable travel within limits of
B 25-65-00 Adjustment/Test para. 5.A.(1) to (4)
B inclusive.

(2) Open the transit box and check that the safety pin is fitted in front of the firing cable collar (Ref. Fig. 402) and that the safety recoil cap is fitted to the bottle aperture. Refer to para. 2.B.(4).

(3) Check that the inflation bottle pressure gauge shows a reading in accordance with the temperature/pressure chart (Ref. 25-65-00, Inspection/Check).

(4) Remove the bottle from its transit box and place the bottle in its mounting, engaging the bottle head on the locating fitting. Secure the bottle with the strap. Lock the strap retaining screw with wire.

(5) Remove the protective safety recoil cap and pipe blank from the bottle and pipe and connect the pipe to the bottle. Torque tighten the pipe coupling nut to between 300 and 420 lbf in (3.4 and 4.75 mdaN).

(6) Thread the bottle firing cable through the cable coupling arm so that the second cable nipple is on the opposite side of the lever and fit the cable retaining split-pin in the coupling arm.

(7) Move the firing lever towards the coupling arm, engage the end nipple of the bottle firing cable in the firing lever and then fit the stop pin to the mounting bracket. Ensure that the firing lever is positioned on the correct side of the stop pin.

(8) Tension the manual standby firing cable using the adjuster, so that the nipple on the bottle firing cable locates in the spherical indent in the cable coupling arm. Check that the gap between the firing lever and

the stop pin does not exceed 0.05 in (1.27 mm) when the bottle firing cable is lightly tensioned by pulling the firing lever.

CAUTION: AT THE COMPLETION OF THIS ADJUSTMENT THE BOTTLE FIRING CABLE MUST BE SLIGHTLY SLACK.

(9) Check that the bottle firing cable is intact throughout its entire length then refit the cover over the air bottle and firing mechanism.

(10) Remove the safety pin from the bottle, attach it to the split-ring and cable on the cover and refit it to the bottle or fit it in its stowed position on the cover, as required.

NOTE: The bottle safety pin must be removed before the girt arm lock-out pin.

D. Conclusion

(1) Remove the girt arm lock-out pin.

(2) Check that the arming lever on the girt flap is set to DISARMED and is secured with the safety pin.

NOTE: The safety pin will be removed before flight and the lever set to ARMED.

RB 3. Close-Up

RB A. Replace the passenger seat removed for access (Ref.
RB 25-24-11, Removal/Installation).

INFLATION BOTTLE MOUNTING STRUCTURE - REMOVAL/INSTALLATION

WARNING: ENSURE THAT THE BOTTLE SAFETY PIN, WHICH IS STOWED IN THE INFLATION BOTTLE COVER, IS FITTED TO THE BOTTLE.

ENSURE THAT THE ARMING HANDLE ON THE GIRT FLAP IS SET TO DISARMED AND IS SECURED BY THE SAFETY PIN.

ENSURE THAT THE LOCK-OUT PIN IS FITTED TO THE FORWARD GIRT ARM.

1. General

Two mounting structures, which are secured to the seat rails either side of the centre aisle at the rear end of the forward passenger compartment, each consist of a rectangular frame of box section. Each structure supports an inflation bottle for the slide/raft pack and an emergency pack.

2. Inflation Bottle Mounting Structure (Ref. Fig. 401)

R A. Preparation

(1) Remove the plastic capping strips, from fore and aft of the seat unit adjacent the mounting structure and remove the seat unit (Ref.25-24-11, Removal/ Installation).

(2) Remove the emergency pack (Ref.25-62-12, Removal/ Installation).

(3) Remove the split-pins and washers from the emergency pack outboard strap assembly retaining pins and withdraw pins; remove strap assemblies.

(4) Remove the inflation bottle (Ref.25-65-14, Removal/ Installation).

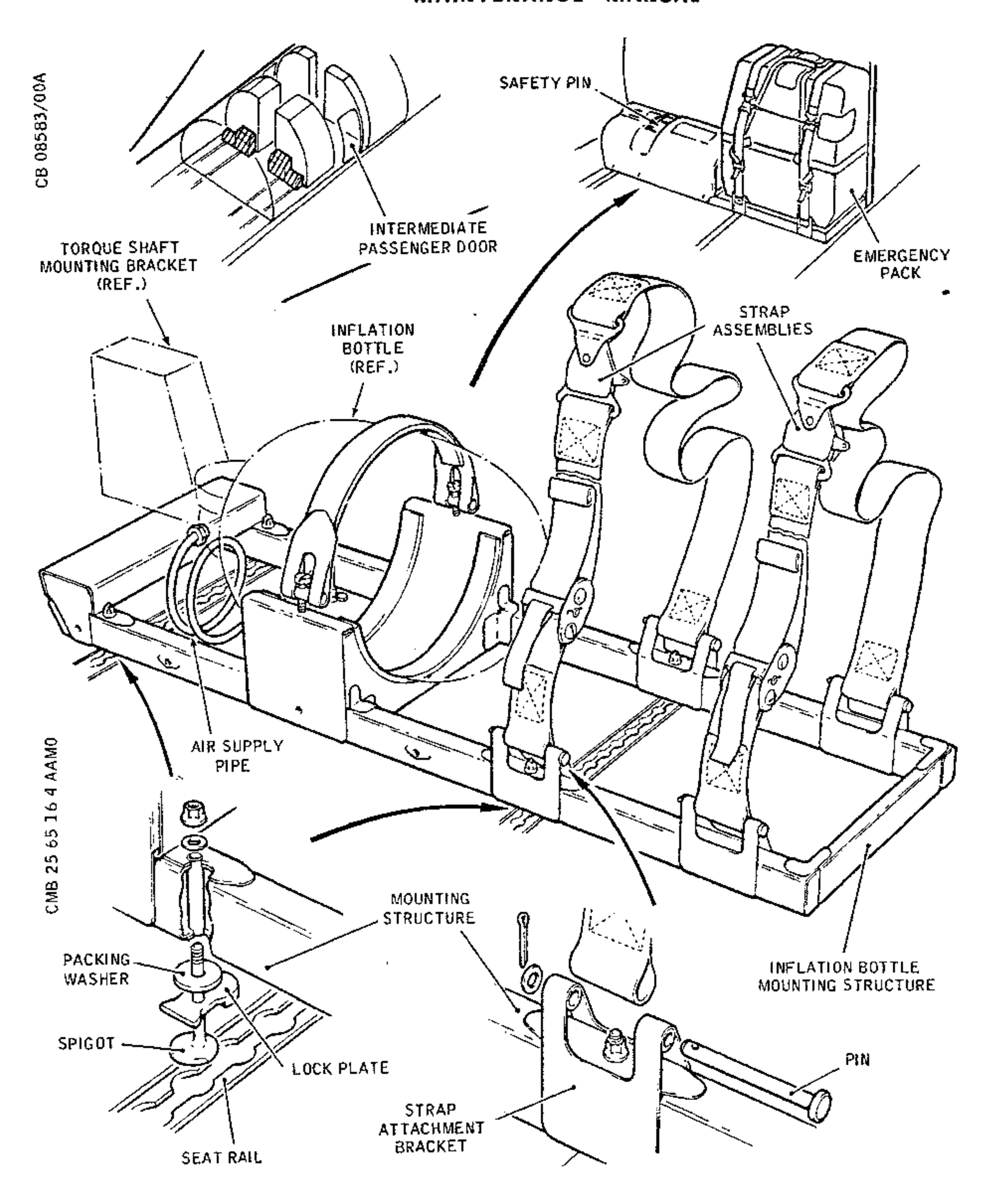
(5) Remove the torque shaft mounting bracket assembly (Ref.25-65-17, Removal/Installation).

R B. Remove

(1) Remove the nuts and washers from the spigots securing the bottle mounting structure to the seat rails.

(2) Manoeuvre the bottle mounting structure to clear the slide/raft air supply pipe and lift it clear.

(3) Remove the spigots from the seat rails by sliding the spigots forward until they can be lifted out.



Inflation Bottle Mounting Structure
- Installation
Figure 401

On aircraft 003-013, 015-015.

(4) Retain the packing washers, fitted under the right hand mounting structure, with the spigots.

R C. Install

(1) Remove obstructions from the seat rails, and clean the rails with a clean, lint free cloth. Check visually for damage particularly the seat rails, spigots and the bottle mounting structure.

(2) Locate the spigots in the lock plates and position the lock plates in the seat rail. Align the bottle mounting structure with the lock plates and locate it
R on the spigots. Secure with captive-washer nuts.

(3) Install the torque shaft mounting bracket assembly (Ref.26-65-17, Removal/Installation).

(4) Ensure that the label on the inflation bottle cover is intact and install the inflation bottle (Ref.25-65-14, Removal/Installation).

(5) Ensure that the emergency pack retaining strap assemblies are serviceable and fit them to the inflation bottle mounting structure with the shorter of the strap assemblies to the front attachment.

(6) Install the emergency pack (Ref.25-65-12, Removal/Installation).

(7) Install the seat unit adjacent the mounting structure (Ref.25-24-11, Removal/Installation).

TORQUE SHAFT MOUNTING BRACKET ASSEMBLY - REMOVAL/INSTALLATION

WARNING: ENSURE THAT THE BOTTLE SAFETY PIN, WHICH IS STOWED IN THE INFLATION BOTTLE COVER, IS FITTED TO THE SLIDE/RAFT INFLATION BOTTLE.

ENSURE THAT THE ARMING HANDLE ON THE GIRT FLAP IS SET TO "DISARMED" AND IS SECURED BY THE SAFETY PIN.

ENSURE THAT THE LOCK-OUT PIN IS FITTED TO THE FORWARD GIRT ARM.

1. General

The inflation bottles for the passenger and service intermediate door slide/raft packs are situated on the left-hand and right-hand side of the aisle at the rear of the forward passenger compartment. The torque shaft mounting bracket assembly of the bottle firing mechanism is located outboard of the inflation bottle and is secured by bolts to the inflation bottle mounting structure.

2. Torque Shaft Mounting Bracket Assembly

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque spanner, range 0-100 lbf in (0-1.13 mdaN)	-

B. Remove (Ref. Fig. 401)

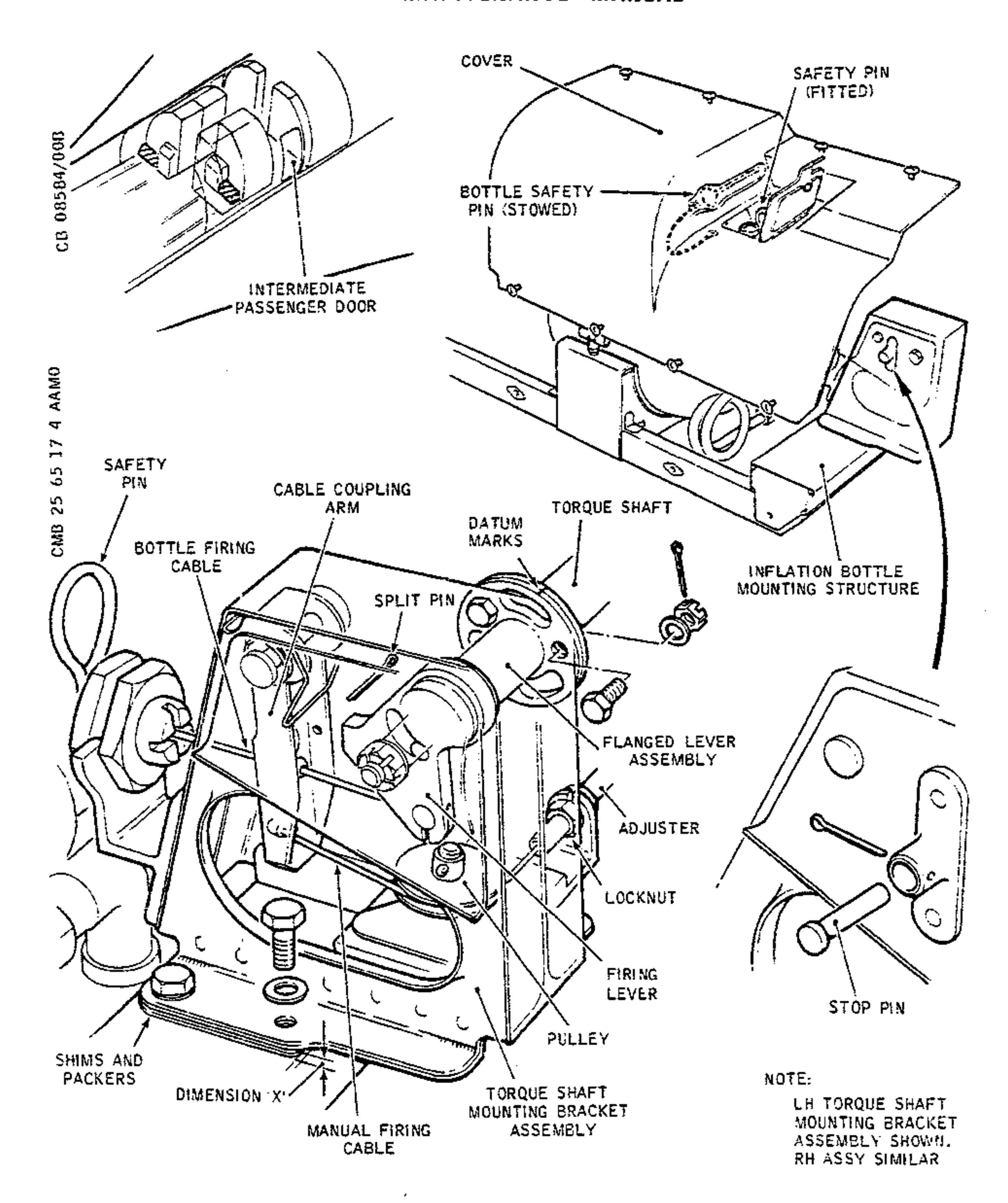
(1) Remove the seat unit adjacent the mounting structure, (Ref.25-24-11, Removal/Installation).

(2) Remove the cover from the air bottle and torque shaft mounting bracket assembly.

(3) Disconnect the bottle firing cable from the firing lever and the cable coupling arm:

(a) Remove the stop pin from the mounting bracket.

(b) Move the firing lever towards the cable coupling arm and disconnect the cable from the firing lever.



Torque Shaft Mounting Bracket Assembly -
Installation
Figure 401

(c) Remove the cable retaining split-pin from the cable coupling arm.

(d) Slacken the manual emergency firing cable at the adjuster sufficiently to free the bottle firing cable from the cable coupling arm and withdraw the cable through the arm.

(4) Disconnect the manual emergency firing cable from the cable coupling arm and the pulley bracket:

(a) Disengage the cable nipple from the coupling arm.

(b) Remove the locknut nearest the pulley from the adjuster and slide the adjuster away from the pulley until it is free of the pulley bracket; lift the cable clear of the pulley bracket.

(5) Remove split/pins, nuts, washers and bolts securing the flanged lever assembly to the torque shaft; support the torque shaft with a suitable support.

(6) Remove four hexagon headed bolts and washers securing the torque shaft mounting bracket assembly to the inflation bottle mounting structure.

(7) Remove torque shaft mounting bracket assembly and retain shims situated between it and the inflation bottle mounting structure.

B. Install (Ref. Fig. 401)

(1) Ensure that the torque shaft mounting bracket assembly is undamaged and that all moving parts are free to move.

(2) Ensure that the packing is undamaged and is securely riveted to the inflation bottle mounting structure.

NOTE: Because the floor slopes, packing and shims are used to give correct alignment of the torque shaft with the mounting bracket assembly. The amount of packing and shimming required is 0.11 in (2.79 mm) (Dimension X).

(3) Wet assemble the shims and the torque shaft mounting bracket assembly to the inflation bottle mounting structure (Ref.20-22-14) and secure them with washers and hexagon headed bolts; torque tighten each bolt to between 40 and 45 lbf in (0.452 and 0.508 mdaN).

(4) Engage the manual emergency firing cable with the slot in the pulley bracket and slide the adjuster through the hole at the lower end of the slot until the locknut abuts the pulley bracket.

(5) Position the second locknut on the adjuster and hand tighten it.

(6) Pass the manual emergency firing cable around the pulley, thread the cable through the cable coupling arm and locate the nipple in the spherical indent at the lower end of the coupling arm; take up excess slack in the cable at the adjuster.

(7) Assemble the torque-shaft to the flanged lever assembly ensuring that the datum marks are aligned with each other and secure with hexagon headed bolts, washers and nuts; torque tighten each nut to between 25 and 30 lbf in (0.282 and 0.339 mdaN) and fit split pins.

(8) Function test the bottle firing mechanism (Ref.25-65-00, Adjustment/Test).

(9) Thread the bottle firing cable through the cable coupling arm so that the second cable nipple is on the opposite side of the lever and fit the cable retaining split pin in the coupling arm.

(10) Move the firing lever towards the coupling arm, engage the end nipple of the bottle firing cable in the firing arm and then fit the stop pin to the mounting bracket.

(11) Tension the manual emergency firing cable using the adjuster, so that the nipple on the bottle firing cable is located in the spherical indent in the cable coupling arm. Check that the gap between the firing lever and the stop pin does not exceed 0.05 in (1.27 mm) when the bottle firing cable is lightly tensioned by pulling the firing lever.

CAUTION: AT THE COMPLETION OF THIS ADJUSTMENT THE BOTTLE FIRING CABLE MUST NOT BE IN TENSION.

(12) Without moving the manual emergency firing cable tighten the locknut on the adjuster.

(13) Check that the bottle firing cable is intact throughout its length then refit the cover over the air bottle and torque shaft mounting bracket assembly.

(14) Remove the safety pin from the slide/raft inflation bottle, attach it to the split ring and cable on the cover and refit it to the bottle or fit it in its stowed position on the cover, as required.

CAUTION: THE BOTTLE SAFETY PIN MUST BE REMOVED BEFORE THE GIRT ARM LOCK-OUT PIN.

C. Conclusion

(1) Remove the girt arm lock-out pin.

(2) Check that the arming lever on the girt flap is set to "DISARMED" and secured with the safety pin.

NOTE: The safety pin will be removed before flight and the lever set to ARMED.

SLIDE SYSTEM (REAR SERVICE DOORS) - DESCRIPTION AND OPERATION

1. General (Ref. Fig.001 and 002)

An inflatable slide is carried on each rear service door to enable passengers and crew to evacuate the aircraft during an emergency. An independent system to deploy the slide is incorporated on each door. When armed, the system is operated by opening the door from inside the aircraft to an emergency position at right angles to the fuselage, where the slide will be automatically deployed and inflated. If the door is opened from outside the aircraft, the system is automatically disarmed. After deployment, a quick-release facility can be operated at the door to separate the slide from the aircraft and provide additional flotation.

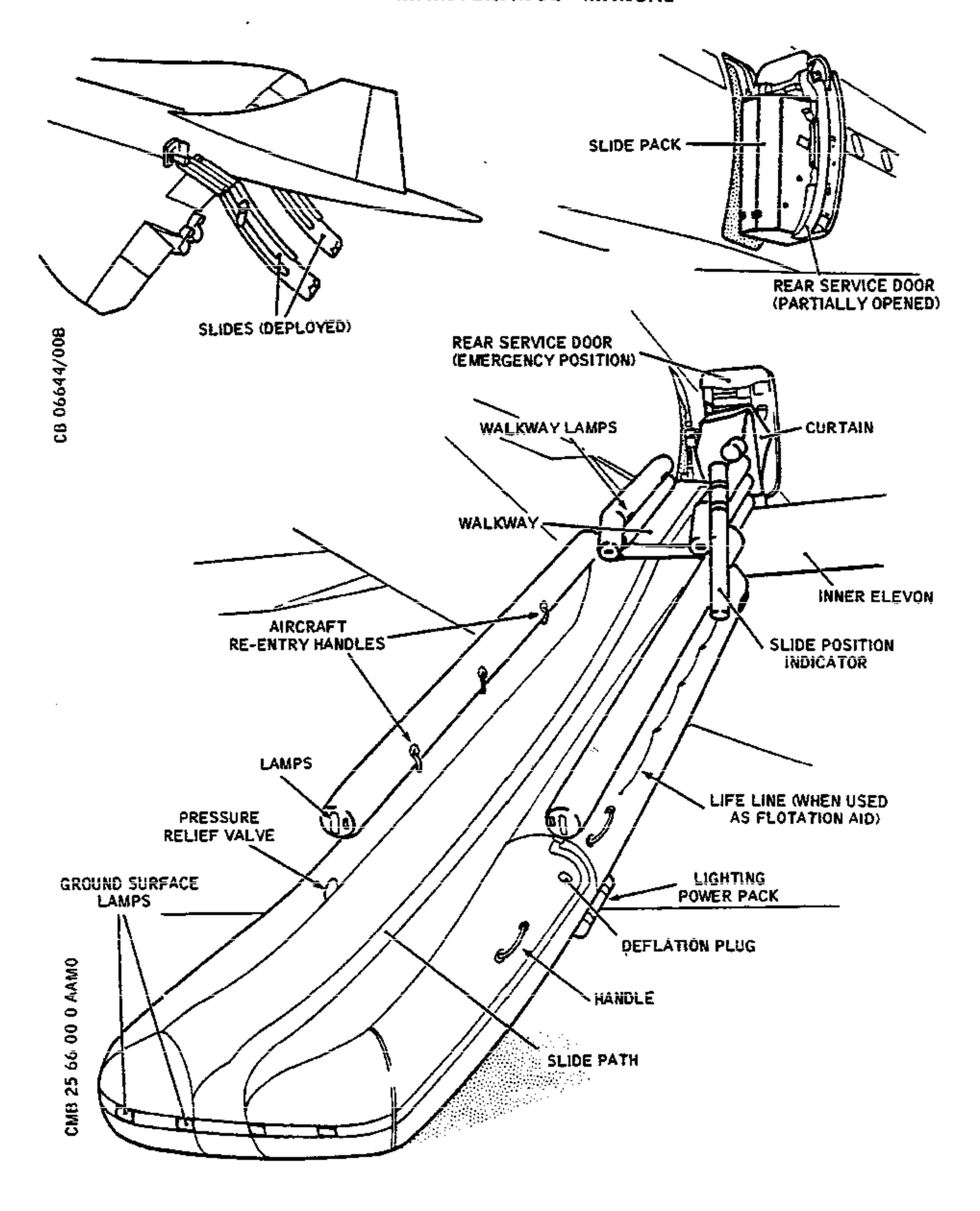
R B A manual release facility is provided to override the
R B automatic system should the slide release not occur when door
R B is at 90° to fuselage.

Each system comprises a slide pack, which is secured to the inboard surface of the door, and arming, disarming and release mechanisms in the door. Air bottles for inflating the slide are contained in the slide pack.

2. Slide Pack (Ref. Fig.001 and 002)

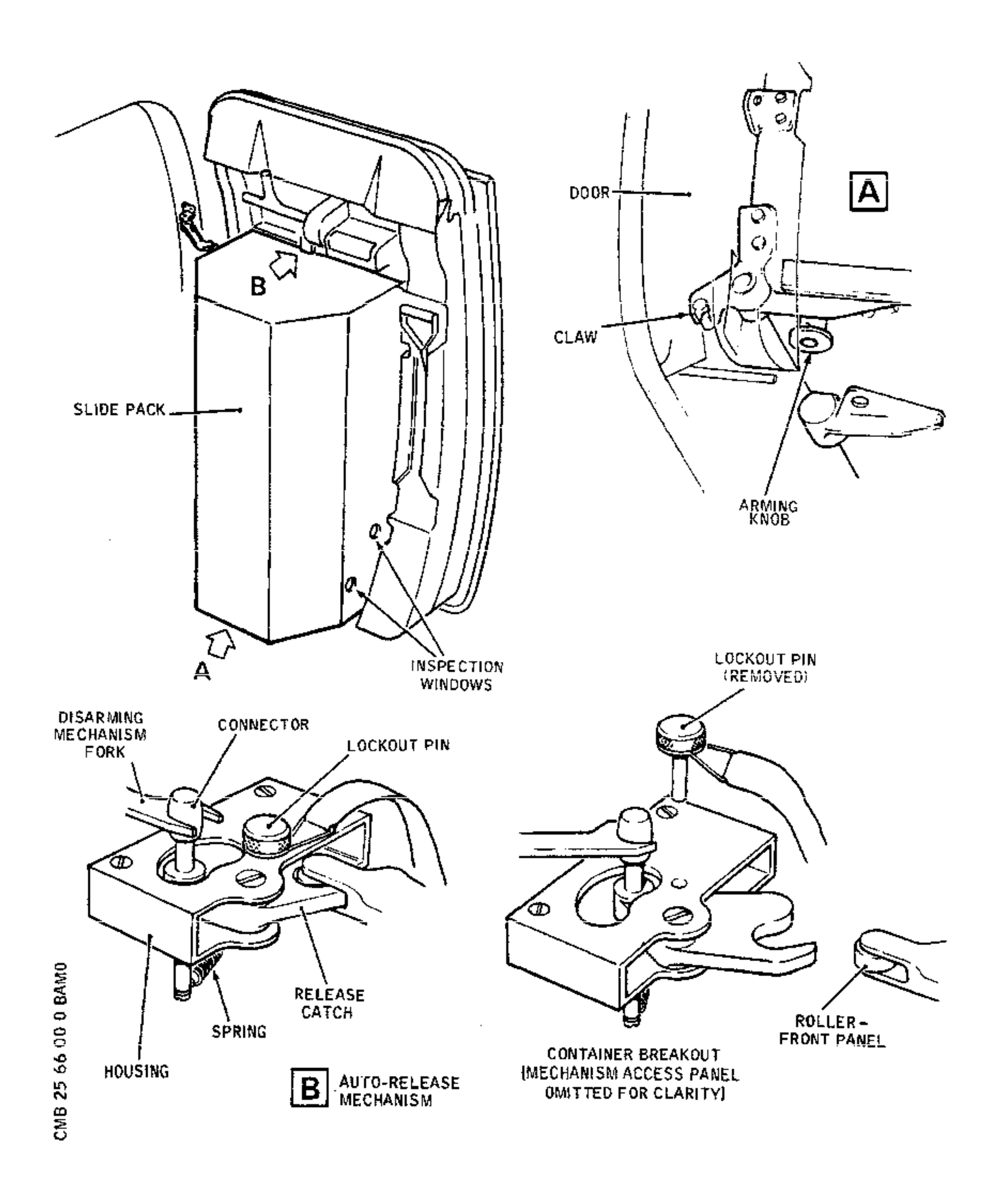
The pack comprises a slide and walkway stowed in a collapsible container which is made up of hinged panels. It is installed on the inboard surface of the furnished door so that a claw at each end of the bottom panel, engages a pin on the door and the pack is retained on the door by four bolts. In this position, an auto-release mechanism on the top panel of the container engages the arming mechanism on the door (Ref. para 3).

The container houses the slide and walkway complete with inflation equipment, which includes one air bottle for the slide and one for the walkway. Two windows in the rear side panel permit inspection of the air bottle pressure gauges. On the bottom panel is a knob which, when operated, prevents inflation of the walkway and consequently the slide. The rotary and fixed parts of the knob are colour coded: red-to-red indicates that inflation can take place; green-to-red indicates inflation cannot take place. The auto-release mechanism, located on the container top panel and enclosed by a hinged cover, incorporates a spring-loaded release catch which has a connector projecting upwards through a slot in the housing. When the pack is installed the connector is restrained by the fork of the armed mech-



Rear Service Door Escape Slide
Figure 001

R



Slide Pack
Figure 002

anism. Before the pack is removed from the door, a lockout pin must be inserted in the housing to prevent movement of the latch and accidental deployment of the slide.

Once the latch is free to move, it opens under spring pressure. The cam shape of the latch reacts on the roller and forces the front panels away from the pack and clear of the door.

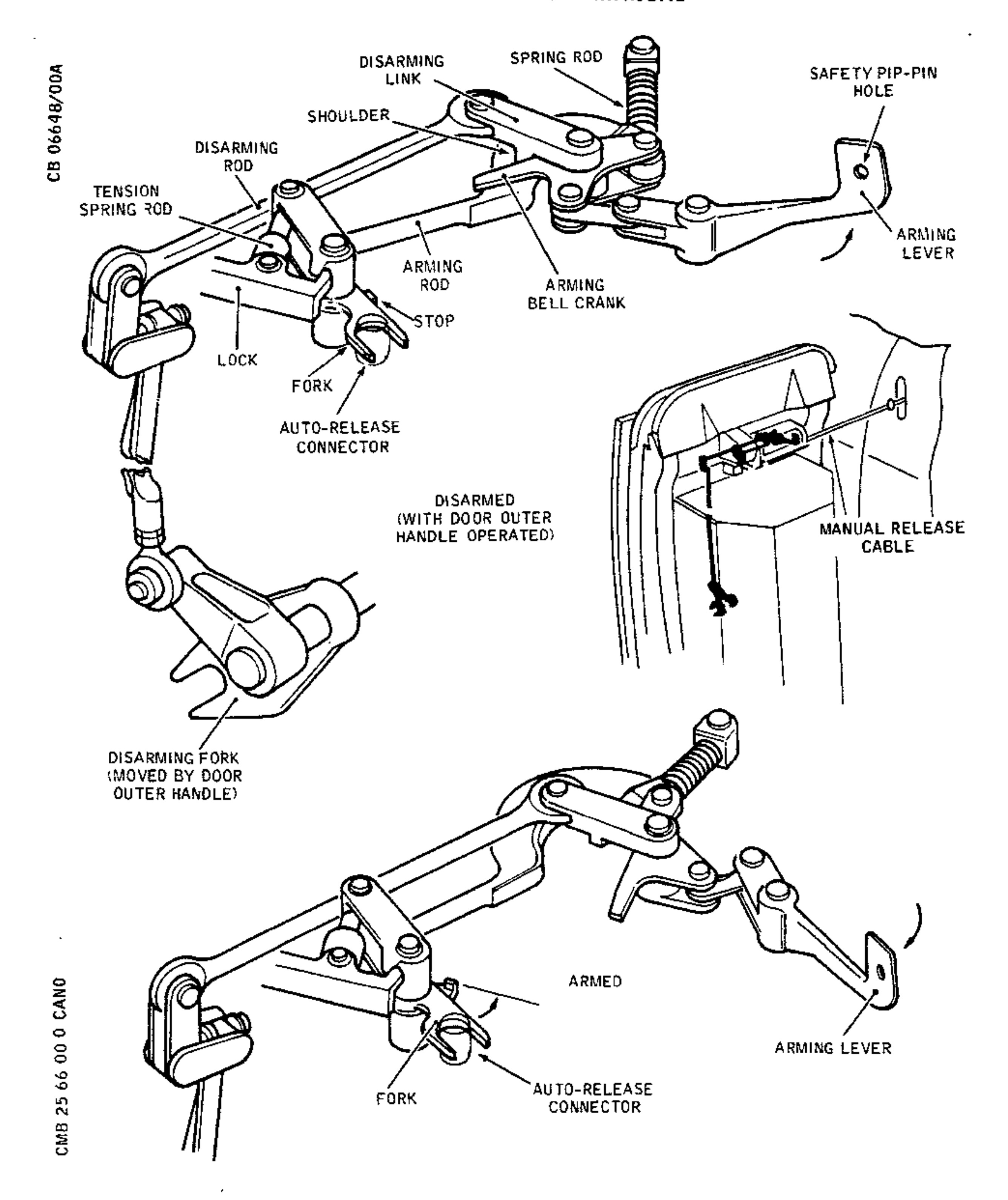
On the rear panel of the slide pack is a threshold emergency lamp unit, which is part of the aircraft internal emergency lighting system (Ref. 33-51-00).

3. Arming and Disarming Mechanism (Ref. Fig. 003)

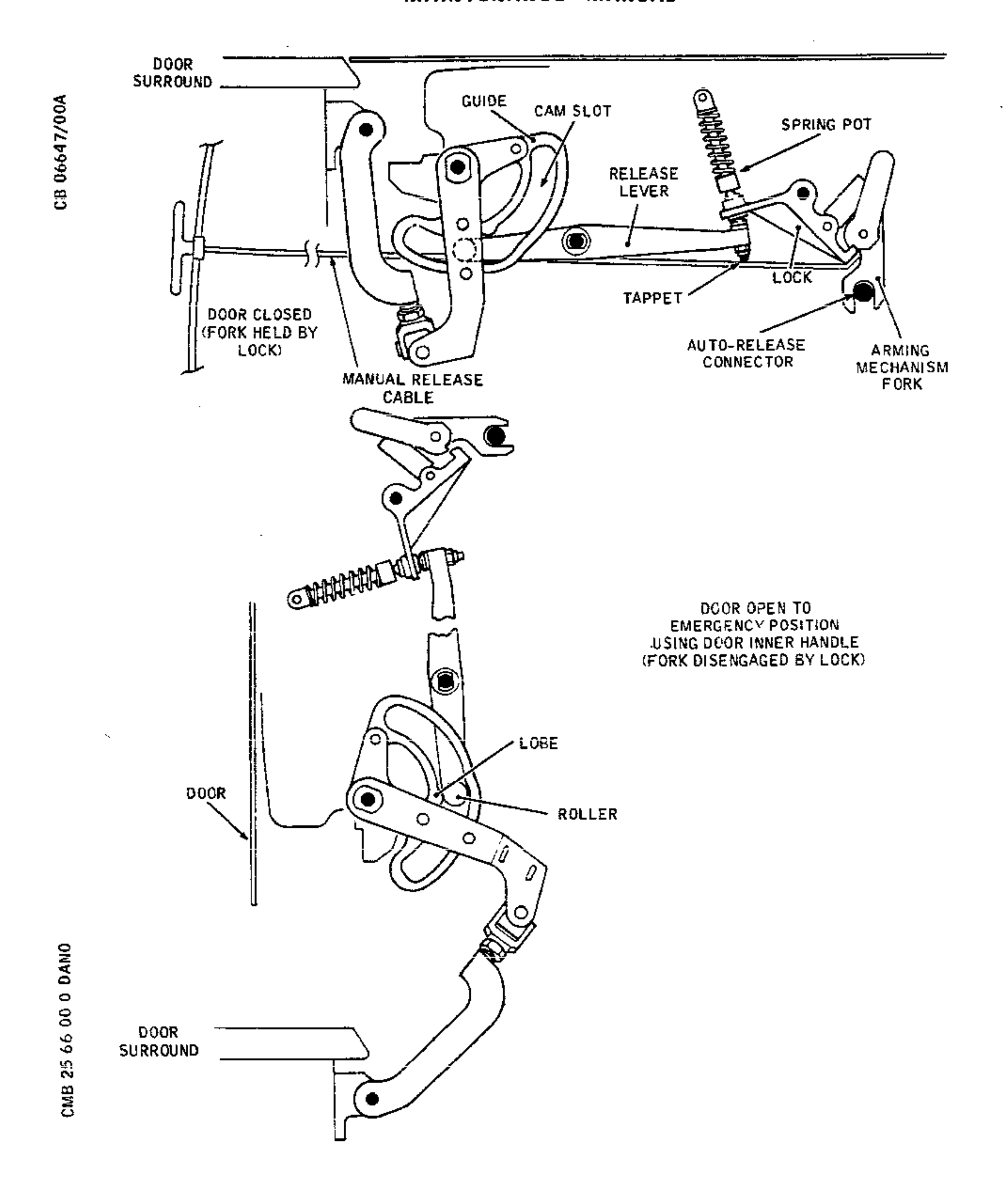
The mechanism is manually operated to arm the system once the door is closed from inside the aircraft, and automatically disarms the system when the door is opened from outside the aircraft. It comprises an arrangement of levers connecting an arming lever on the inside of the door to the door outer handle. The arming lever, painted fluorescent red, protrudes from the door furnishing panel, just above the pack, and is enclosed by a hinged protective cover which incorporates an inspection window and is stencilled ARMED (in red) and DISARMED (in green). With the arming lever at "ARMED", the mechanism permits operation of the auto-release on the pack. With the lever at "DISARMED" the mechanism prevents operation of the auto-release. To prevent inadvertent operation of the slide when the aircraft is stationary and not preparing for flight, a safety pip-pin inserted through a hole in the arming lever secures the lever, at DISARM, to a static plate on the door. If the door is opened using the door outer handle, the arming fork is locked in position to prevent operation of the pack auto-release. For a complete description of the mechanism in the door, refer to 52-21-11.

4. Release Mechanism (Ref. Fig. 004)

The mechanism unlocks the auto-release on the pack to initiate deployment of the slide once the door is in the emergency position. It consists of a cam-operated release lever, which actuates the arming mechanism to allow operation of the auto-release connector on the pack. For a complete description of the mechanism in the door, refer to 52-21-11.



R Arming and Disarming Mechanism B
Figure 003



R

Release Mechanism
Figure 004

B

R 5. Operation (Ref. Fig. 003, 004 and 005)

Following installation of the pack to the door, the lockout pin must be removed from the auto-release mechanism, the safety pip-pin must be removed from the arming lever, and the walkway air bottle arming knob must be wirelocked in the red-to-red position. When removed, the two pins are stowed in a compartment in the rear vestibule forward bulkhead.

With the arming lever at DISARMED, the door can be opened using either the inner or the outer handle without operating the slide. The stop on the stop lever is held against the fork, by the action of the spring rod, to prevent operation of the auto-release on the pack.

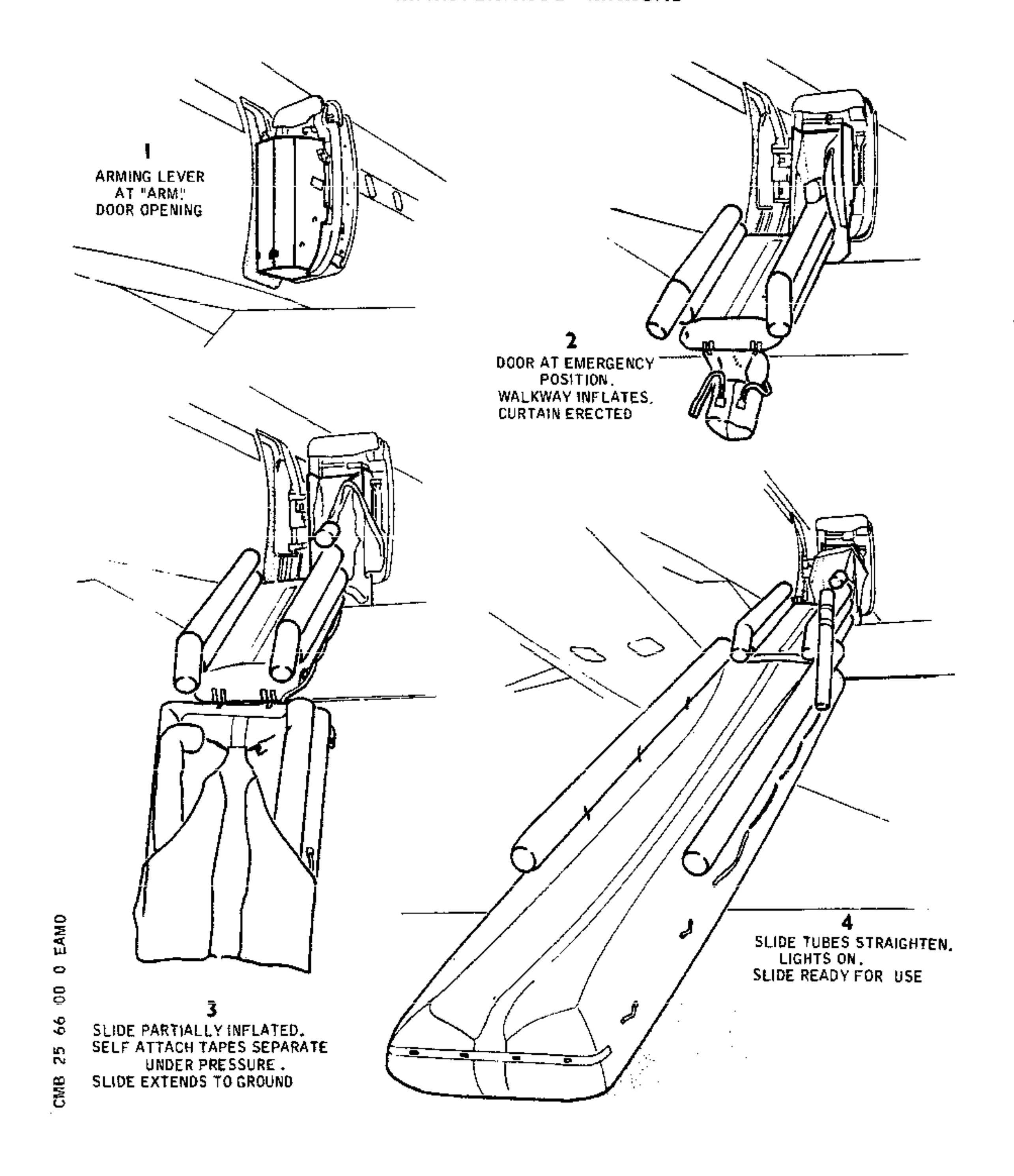
On closing the door, the system is manually armed by lifting the hinged protective cover and setting the arming lever to "ARMED". Opening the door, using the door inner handle, to the emergency position operates the system.

Setting the door arming lever to "ARMED" causes the stop on the stop lever of the arming mechanism to be rotated clear of the fork, which is then prevented from movement by the lock. Opening the door, from inside the aircraft, to its emergency position permits a roller on the end of the release lever to travel along the slot in the stationary guide until it rides on a cam causing the release lever to pivot. The tappet then pivots the lock clear of the fork which can then rotate under spring pressure from inside the pack, allowing the pack to break open. In practice, the door locked in the emergency position, must be given an additional push to disengage the fork. This ensures that the door is locked in the open position before the fork disengages and releases the pack. The slide air bottle falls under its own weight pulling the firing cable of the walkway air bottle to initiate inflation and deployment.

B A manual release facility is provided to override the
B automatic system should the slide release not occur when
B door is at 90° to fuselage.

As the walkway deploys from the pack a fabric curtain between the door and walkway is automatically erected to confine the users of the slide to the exit path. During inflation, a cord withdraws the firing cable from the slide air bottle which then begins to inflate the slide.

The slide is automatically precipitated over the lowered, inner elevon trailing edge and is held in a folded position by



Slide Operation
Figure 005

self-attaching tapes. These tapes enable sufficient pressurised air to enter the slide so that correct deployment is assured. Continued inflation seperates the tapes and allows the slide to fully extend.

In the event of non-automatic inflation, the operator must grasp the red webbing tapes at the foot of the container and pull vigorously away from the door; the upper and the lower tapes are for inflating the walkway and the slide respectively. The pulling force will remove the firing cable from the appropriate air bottle and inflation will commence.

After deployment, the slide may be released from the aircraft by pulling a red webbing disconnect handle which is stowed beneath a flap, marked with yellow diagonal stripes at the foot of the container. The red webbing handle is stencilled "PULL". When the handle is pulled, two spring actuated release hooks are opened to separate the walkway from the container.

On opening the door using the door outer handle, the disarming fork of the arming mechanism is pivoted downward. This causes the disarming link to rotate so that a shoulder on the link moves the arming bellcrank lever until the spring rod is over centre. The spring rod, under the action of its spring, reacts on the bellcrank lever and causes the arming lever to move to "DISARMED".

SLIDE SYSTEM (REAR SERVICE DOOR) - ADJUSTMENT/TEST

WARNING: ENSURE THAT THE LOCKOUT PIN IS FITTED IN THE AUTO-RELEASE MECHANISM, AND THE SAFETY PIP-PIN SECURES THE ARMING LEVER AT 'DISARM' BEFORE ADJUSTING/TESTING THE SLIDE SYSTEM.

1. General

The release mechanism is adjusted in the door to ensure that the slide can be released automatically. Also included in these procedures are operational tests of the system (with and without deployment and inflation) and of the disarm mechanism, and a lighting harness functional test.

2. Release Mechanism Adjustment (Ref. Fig. 501)

A. Prepare

(1) With the arming lever safety pip-pin and the auto-release lockout pin fitted, open the door to the 90 deg. emergency position; check that the door is automatically locked.

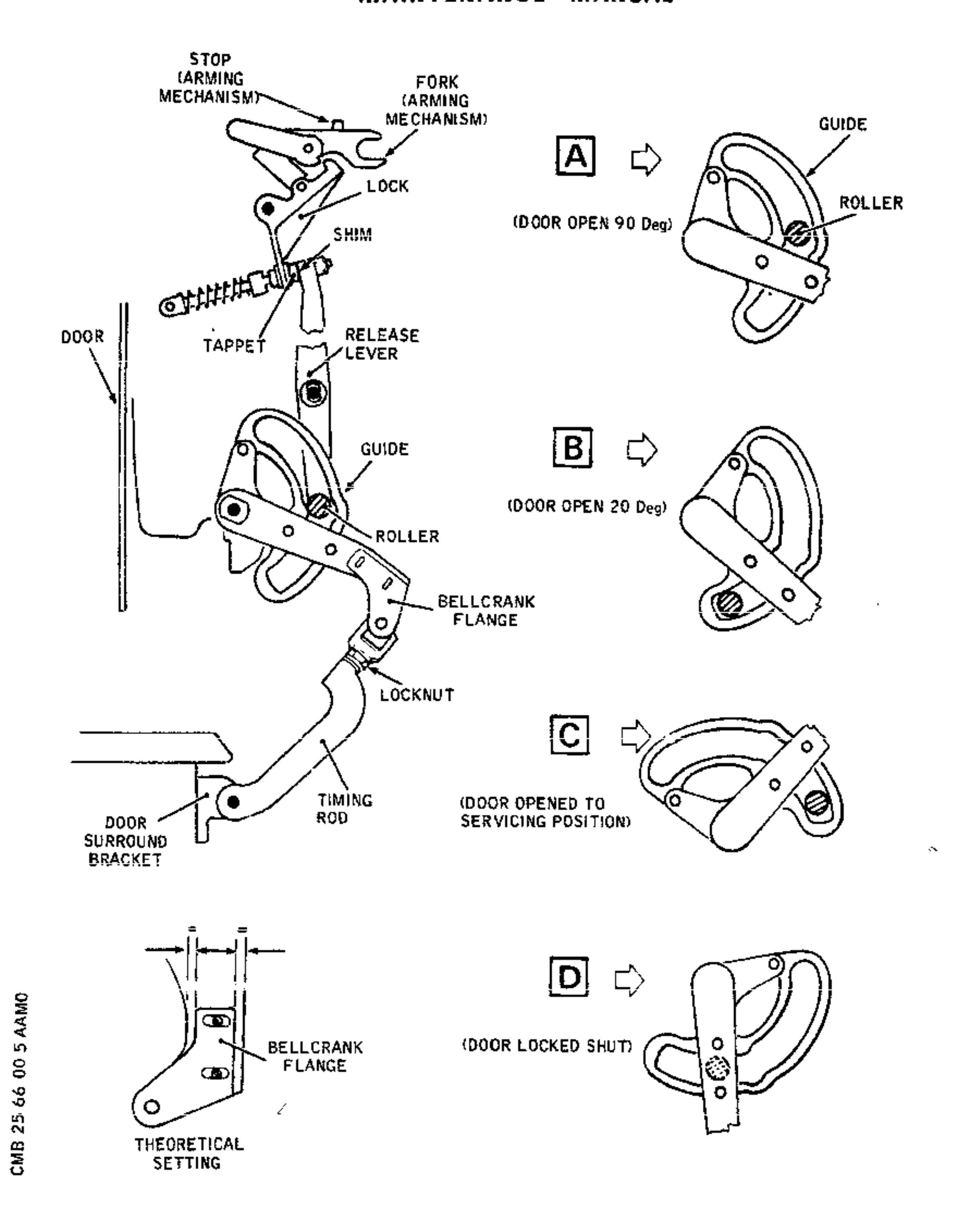
(2) Remove the access panel on the door immediately outboard of the door inner auxiliary handle.

B. Adjust

(1) Remove the split pin, nut, washer and bolt securing the timing rod to the door surround bracket; disconnect the rod from the bracket.

(2) Remove the wire securing the locknut. Unscrew the locknut and adjust the timing rod so that the roller rides on top of the lobe (Detail A). Reconnect the timing rod with the bracket and refit the bolt, washer, nut and split pin. Tighten the locknut, and lock it with 0.028 in (0.7 mm) dia wire to the timing rod.

R (3) With the door locked open in the 90 deg emergency
R position and the cam roller positioned on the
R lobe give the door an additional push to operate
R the release mechanism fork. Check that the lock has
R disengaged the fork. If the lock remains engaged,
R remove the split pin, nut, washer, tappet and shim
R from the release lever. Adjust the thickness of the



Release Mechanism - Adjustment
Figure 501

shim so that, when the tappet is refitted, the lock disengages the fork.

R NOTE: The additional push on the door, required to disengage the fork, ensures that the fork does not release before the door is locked in the open position.

(4) Release the door, and gradually close it to approximately 20 deg. from the fully closed position. Check that the roller has not reached the end of the cam slot (Detail B).

(5) If the roller is in contact with the end of the slot, slacken the two nuts securing the tripping bellcrank flange. Move the bellcrank one serration on the flange toward the door hinge; secure the flange with the nuts.

(6) Gradually close the door fully, continually observing the release mechanism to ensure that movement of the roller is not obstructed. When the door is fully closed, ensure that the roller does not contact the end of the cam slot, nor does it contact the lobe.

(7) If the roller contacts the lobe, the bellcrank must be moved one serration on the flange away from the door hinge.

(8) Gradually open the door fully to the servicing position, checking that the roller does not contact the end of the cam slot (Detail C).

(9) Check that when the door is closed and locked shut, the roller is positioned between the cam lobe and the end of the cam slot (Detail D).

C. Conclusion

(1) Refit the access panel.

3. Disarm Mechanism Operational Test

CAUTION: TWO PERSONS ARE REQUIRED TO PERFORM THIS TEST, ONE STATIONED INSIDE THE FUSELAGE AT THE DOOR, AND ONE OUTSIDE THE CLOSED DOOR. DO NOT REMOVE THE AUTO RELEASE LOCKOUT PIN.

A. Prepare to Test

(1) On the door furnishing panel, lift the hinged arming lever cover, and remove the safety pip-pin.

(2) Move the arming lever to "ARMED".

B. Test

(1) Pivot the door outer handle outward and fully upward to unlock the door.

(2) Using the door outer handle, pull the door open until it is locked in the 90 deg emergency position.

(3) Ensure that the arming mechanism stop abuts the auto release mechanism fork to prevent movement of the release catch, and that the arming lever is moved to "DISARM".

C. Conclusion

(1) Secure the arming lever at "DISARMED" with the safety pip-pin.

4. Slide System Operational Test - Slide Operative (With Inflation)

WARNING: THE AREA OUTSIDE THE REAR SERVICE DOOR ON THE WING AND BELOW THE INBOARD ELEVON ON THE GROUND MUST BE CLEAR OF EQUIPMENT AND PERSONNEL BEFORE OPERATING THE SLIDE SYSTEM.

A. Prepare to Test

(1) Switch on electrical ground power (Ref.24-41-00).

R (2) Check that the hydraulic power is off and the
R elevons are in the fully down position.

R (3) On the pilots' panel 4-211 and the steward's panel 1-221 in the forward vestibule, place the emergency lighting control switches at "ARM" and "NORMAL" respectively.

R (4) Spread protective sheeting on the wing surface and on the ground in the path of the slide.

B. Test

(1) Hinge the arming lever cover open, remove the

safety pip-pin securing the arming lever and set the lever to "ARMED".

(2) Remove the lockout pin securing the auto-release mechanism on top of the pack.

WARNING: ONCE THE DOOR IS OPENED TO THE 90 DEG EMERGENCY POSITION ALL SUBSEQUENT OPERATIONS ARE AUTOMATIC, AND PERSONNEL MUST KEEP CLEAR OF THE SLIDE DURING DEPLOYMENT.

(3) Pivot the door inner handle inboard and fully upward to unlock the door.

(4) Push the door outward, using the grab handle, until the door is locked in the 90 deg. open position. Ensure that the following operations occur in sequence:

(a) Operation of the auto-release mechanism causing the slide pack to break open.

(b) Inflation of the walkway and erection of the curtain that joins the walkway to the door.

R (c) The slide positions over the inner elevon
R trailing edge and retains in a folded position by
R self-attaching tapes, until sufficient air
R pressure enters the slide to separate the tapes,
R allowing the slide to fully extend.

R (d) Complete inflation of the slide and illumination of slide lamps.

NOTE: If the walkway or the slide fails to inflate, pull the red webbing tapes, at the foot of the container, vigorously away from the door. The upper and lower tapes are for inflating the walkway and slide respectively.

(5) Trip the CABIN EMERG LTS circuit breaker L831 on panel 1-213, map ref. Q22 and check that the door threshold lamps illuminate. Reset the circuit breaker.

C. Conclusion

(1) Remove the deployed slide and the slide container from the door (Ref.25-66-11, Removal/Installation).

(2) Switch off electrical ground power.

(3) Remove protective sheets.

5. Slide System Operational Test - Slide Inoperative (Without Inflation (Ref. Fig. 501)

A. Test

(1) With the arming lever safety pip-pin and the auto release lockout pin fitted, open the door using the inner handle to the 90 deg. emergency position. Ensure that the door locks in the emergency position.

(2) Lift the hinged cover, enclosing the auto-release mechanism, adjoining the slide pack top panel. Ensure that the arming mechanism lock is disengaged from the fork, and that the mechanism stop abuts the fork. Release the cover.

(3) Close the door.

(4) Open the door, using the door outer handle, to the 90 deg. emergency position. Check that the arming mechanism stop abuts the fork.

(5) With electrical ground power on (Ref. 24-41-00), trip the emergency lights circuit breaker L831, map ref. Q22 on panel 1-213, and check, at the four inspection holes in the base of the threshold emergency lamp on the rear side panel of the slide pack, that the individual filaments illuminate.

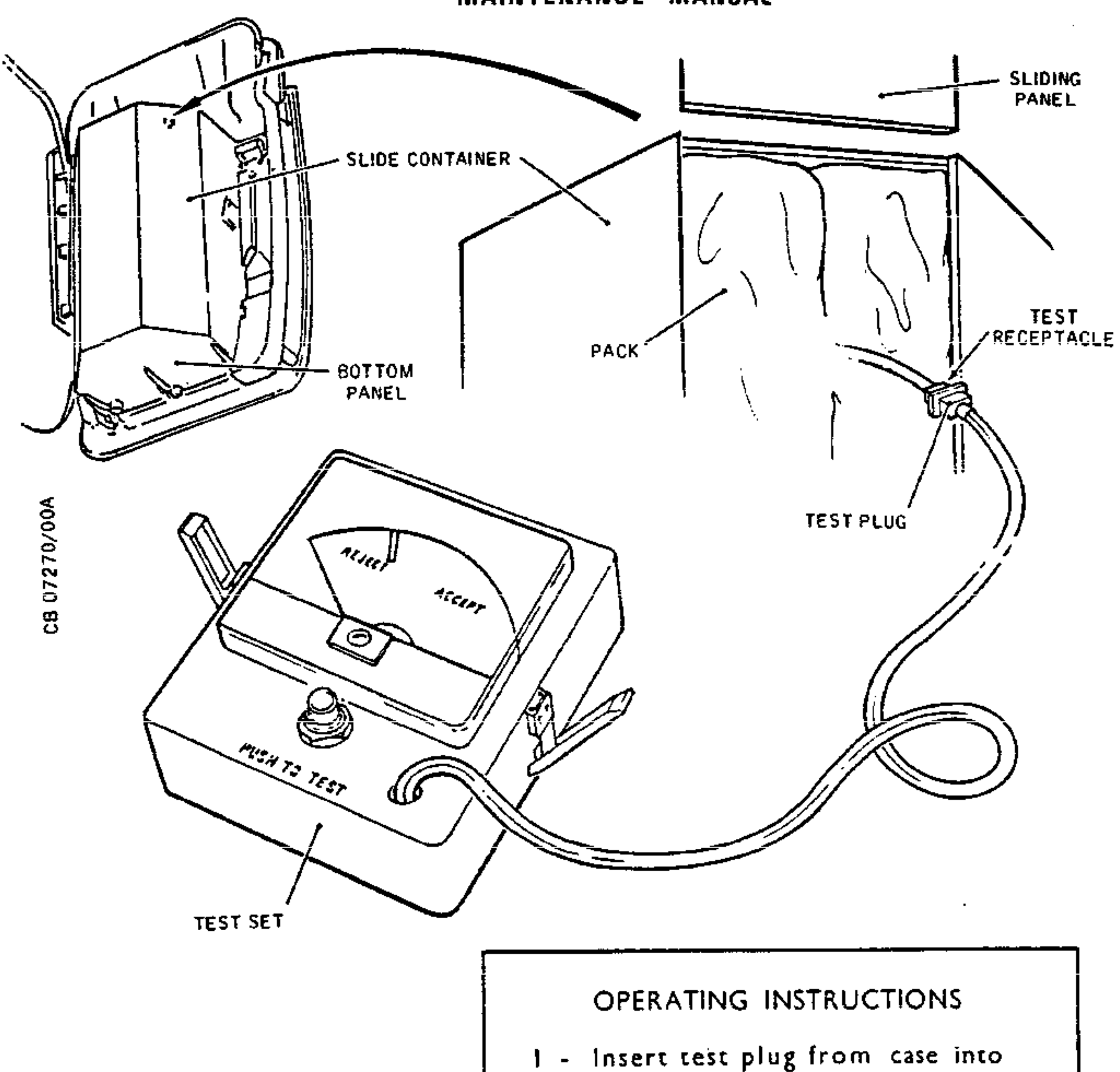
R B (6) Remove auto release lockout pin and close door.

6. Lighting Harness Test (Ref. Fig. 502)

A. General

An alkaline battery pack to power the slide lighting system is integral with the pack. The test jack is accessible via the rear oblique side panel. The test can be carried out with the pack in-situ.

B. Equipment and Materials



OPERATING INSTRUCTIONS

1 - Insert test plug from case into test receptacle located on the power unit Model No BAS-2
2 - Depress Push to Test button and hold for 5 seconds
3 - Meter deflection will indicate condition of power units

CMB 25 66 00 5 BAMO

Lighting Harness Testing
Figure 502

DESCRIPTION	PART NO.
Test set, lighting harness	TS 10 or RFD B02706-009-7
or alternatively	
Avometer	-
RB TU-14	-
Non-corrodible steel wire 0.028 in (0.7 mm) dia.	-

C. Test

(1) Ensure that the safety pip-pin secures the arming lever at DISARMED, and that the lockout pin secures the auto release mechanism.

(2) Using the door inner handle open the door to the 90 deg position.

(3) Remove the wire securing the rear oblique panel on the pack container. Slide the panel upward and retrieve the test jack flying lead from inside the pack.

(4) If using the test set, connect its lead to the flying lead test receptacle. Test in accordance with the instructions on the battery tester. A reading below the red ACCEPT datum mark indicates that more than one lamp is inoperative or, that the power pack is not delivering the required current.

RB (5) Detailed below are the light harness test readings associated with each piece of test equipment and harness type.

	AVOMETER*	TU-14
Old Light Harness (Pt No.01297001 OR 01298001)	1.125 Min.	0.945-1.145
New Light Harness (Pt No.P2-01-0035-078) (Pt No.P2-01-0035-087)	0.802 Min.	0.610-0.780

RB * If using the Avometer, connect its test leads to the appropriate terminals in the flying lead test receptacle, ensuring correct polarity, and check the current for 5 seconds.

RB NOTE: A new label is on packs to identify the new
RB lamp harnesses and the appropriate ampere
RB readings.

D. Conclusion

(1) Disconnect the test set.

(2) Replace the test jack in the pack.

(3) Reposition the sliding panel and secure it to bottom panel with wire.

(4) Close the door.

SLIDE SYSTEM (REAR SERVICE DOOR) - INSPECTION/CHECK

WARNING: ENSURE THAT THE LOCKOUT PIN IS FITTED IN THE THE AUTO-RELEASE MECHANISM, AND THE SAFETY PIP-PIN SECURES THE ARMING LEVER AT DISARM BEFORE OPENING THE DOOR TO INSPECT/CHECK THE SLIDE SYSTEM

THE TWO AIR BOTTLES IN THE SLIDE PACK MUST NOT BE RECHARGED OR TOPPED-UP ON THE AIRCRAFT.

1. General

Inspection/Check on the slide system can be completed with the rear service door opened to the 90 deg emergency position, except when checking the arming lever when the door must be shut.

2. Slide System Inspection/Check

A. Inspection

(1) Visually inspect the slide pack for cleanliness, security and freedom from damage.

R
R (2) Check the pressure in each of the two air bottles
R (Ref. para. 3).

(3) Ensure that the rotary knob on the bottom panel of the slide pack is wire-locked in the red-to-red position.

(4) Ensure that the two obliquely-fitted side panels are wire-locked and the lead seals are intact.

(5) Lift the hinged panel covering the auto-release mechanism immediately above the top panel of the pack. Ensure that the mechanism is clean, undamaged and free from corrosion.

(6) Lift the hinged cover enclosing the arming mechanism; ensure that the arming mechanism is clean, undamaged and free from corrosion.

(7) Ensure that all placards on the slide pack and on the slide arming hinged cover are legible.

B. Check

(1) With the door closed and locked, remove the safety pip-pin from the arming lever. Check that the arming lever can be moved from DISARMED to ARM smoothly and without obstruction. Move the lever back to DISARMED and secure it in this position with the safety pip-pin.

(2) Check that the release mechanism timing rod is secured to the door surround bracket, and that the locknut on the rod is wire-locked.

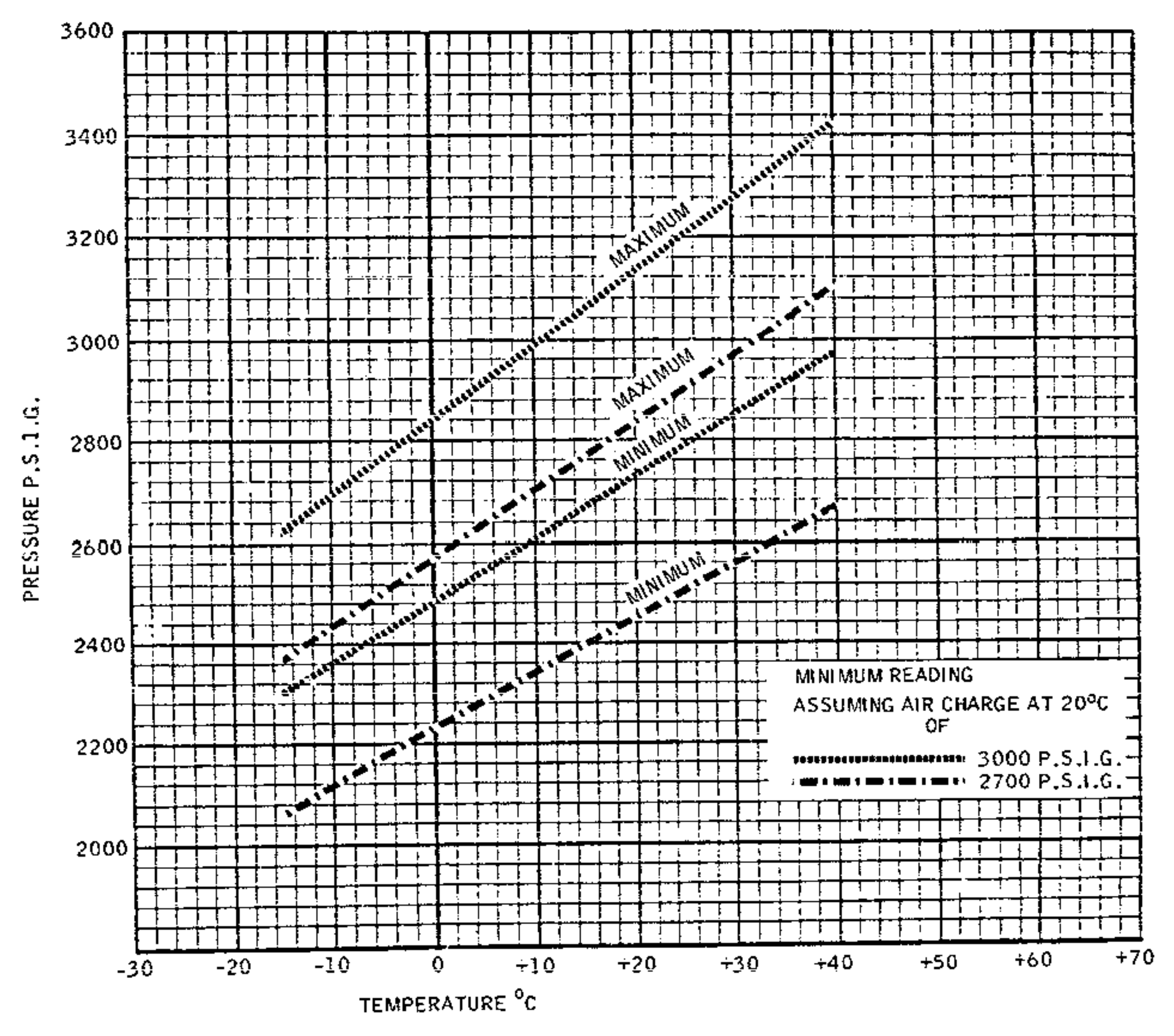
(3) Check the security of the threshold emergency lamp unit which is secured to the rear panel of the pack and that of the two electrical cables which are connected to the terminal block on the unit.

R 3. Inflation Bottle Pressure

R A. Check

R (1) Check the pressure in each of the two air bottles, as viewed through the appropriate inspection window on the rear side of the pack, against the relevant pressure/temperature chart (Ref. Fig. 601). The walkway air bottle, viewed through the top window, should indicate 3000 psig at 20 deg C, and the slide air bottle, viewed through the bottom window, should indicate 2700 psig at 20 deg C.

CB 07216/00C



CMB 25 66 00 6 AAM0

Pressure/Temperature Charts
Figure 601

SLIDE PACK (REAR SERVICE DOORS) - REMOVAL/INSTALLATION

WARNING: ENSURE THAT THE LOCKOUT PIN IS FITTED BEFORE ATTEMPTING TO REMOVE THE PACK FROM THE DOOR.

OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

A slide pack is fitted to each of the rear service doors. The pack comprises the container, the slide and walkway, one compressed air cylinder for the slide and one for the walkway and connecting pipes and firing cables. The contained pack is bolted to the door by four bolts and it also rests on a mounting, secured to the door, at two points. Electrical connections are made to a threshold emergency lamp unit fitted on the rear side panel of the slide pack. The following procedures include removal of a deployed pack.

2. Slide Pack, Rear Service Door (Ref. Fig.401)

A. Equipment and Materials

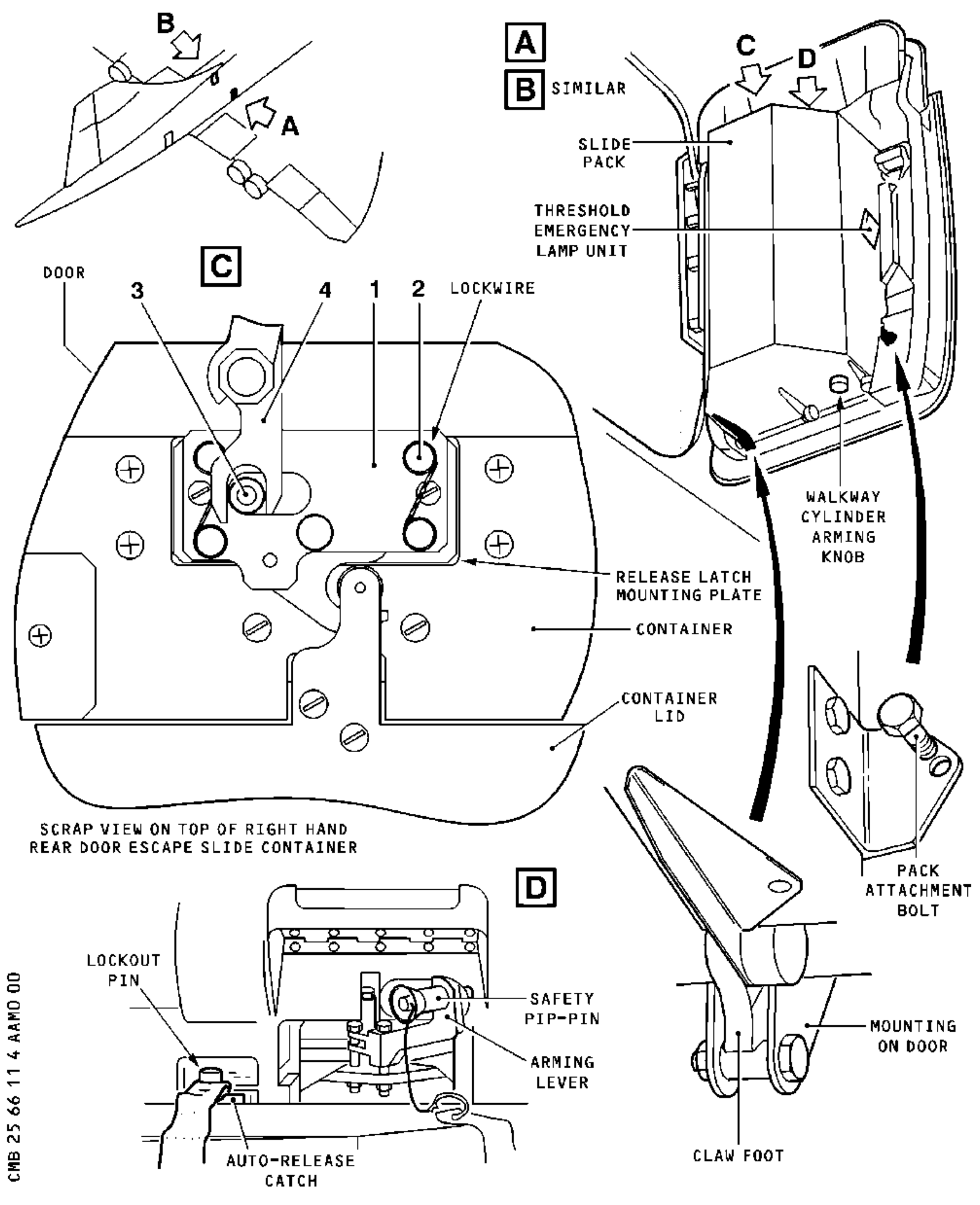
DESCRIPTION	PART NO.
Lockout pin and strap assembly	WKA 35749
Torque spanner, range 0-150 lbf in (0-1.7 mdaN)	-
Locking wire, 0.028 in (0.7 mm) dia., corrosion resistant steel	-
Circuit breaker safety clips	-

B. Prepare to Remove Slide Pack (Ref. Fig.401)

(1) Ensure that the safety pip-pin secures the arming lever on the door at "DISARM".

(2) Insert the lockout pin into the auto-release catch on the pack.

(3) Set the walkway cylinder arming knob on the bottom panel of the pack to the disarmed position by removing the locking wire and setting the knob to show green to red.



R Rear Door Slide Pack - Installation
R Figure 401

(4) On the pilot's panel 4-211 and the steward's panel 1-221 in the forward vestibule, ensure that the emergency lighting control switches are at OFF and NORMAL respectively, then trip the emergency lighting circuit breaker L831, map ref. Q22 on panel 1-213.

(5) Remove the terminal block cover on the threshold emergency lamp unit and disconnect the two electrical cables from the unit.

C. Remove Slide Pack

R CAUTION: THE WEIGHT OF THE PACK, APPROXIMATELY 120 lb (54.43 kg), IS TAKEN BY THE CLAW FEET AT THE BOTTOM OF THE PACK AND IT MUST BE SUPPORTED TO PREVENT IT FALLING FORWARD WHEN THE BOLTS HAVE BEEN REMOVED.

(1) Remove the four 0.3125 in (7.9 mm) dia. UNF bolts and washers that secure the pack to the door. Remove the pack.

(2) Temporarily replace the washers and bolts in the door for stowage.

D. Install Pack (Ref. Fig.401)

NOTE: The door to which the pack is to be fitted must be completely equipped, rigged and furnished.

If a replacement pack is to be fitted, remove the threshold emergency lamp unit from the side of the old pack for subsequent installation on the new pack. Fit a blank cover to the old pack.

(1) If necessary, remove the blank cover from the rear side panel of the pack and position a threshold emergency lamp unit. Fit the cover and secure it with the screws.

(2) Ensure that the safety pip-pin secures the arming lever on the door at "DISARM" and that the lockout pin is fitted into the auto-release catch on the pack.

(3) Comply with the electrical safety precautions.

R (4) Remove the lockwire from the bolts (Item 2) and loosen the bolts by at
R least two full turns.

R NOTE: This is necessary to fully disengage the serrations to allow the
R latch assembly (Item 1) to be moved.

R (5) Position the pack on the door so that the claw feet engage the associated mountings on the door. Rotate the pack so that the connector pin (Item 3) is in front of the arm/disarm mechanism fork (Item 4) on the door.

R (6) Move the latch assembly (Item 1) so that the connector pin (Item 3) is aligned centrally with the arm/disarm mechanism fork (Item 4).

R NOTE: There is a strong tension spring inside the pack connected to the latch. This spring tension must be overcome to move the latch. The spring also tends to twist the latch, keeping the serrations at the connector pin end engaged with the latch mounting plate. The latch assembly must be lifted to ensure that the serrations are completely disengaged.

R (7) Tighten the bolts (Item 2) and lock with lockwire.

R (8) Bolt the pack to the door with four washers and bolts and torque load each bolt to 133 lbf in (1.5 mdaN).

R (9) Check the position of the connector pin (Item 3) to ensure correct alignment with the arm/disarm mechanism fork (Item 4).

R

(10) Set the walkway cylinder disarming knob to the "ARM" position by

R setting red to red. Wire lock the knob.

(11) Remove the lockout pin and place it in its compartment in the forward

R bulkhead of the rear vestibule.

(12) Remove the terminal block cover from the threshold emergency lamp unit

R and connect the two electrical cables, checking the coincidence of cable identification in accordance with the Wiring Diagram Manual.

(13) Reset the circuit breaker previously tripped.

R

(14) Operationally test the slide system (Ref. 25-66-00, Adjustment/Test.

R

E. Remove Deployed Pack (Ref. Fig. 402)

(1) Detach the walkway side curtain from the container.

(2) Tear off the diagonally striped patch on the walkway, near the door, to reveal a red tape marked "PULL".

(3) Pull the tape sharply and the walkway, with the slide attached, will be separated from the container and may be carefully lowered over the wing trailing edge.

CONTAINER
REAR SERVICE DOOR (RH)
TEAR-OFF PATCH
RED FARIC HANDLE
CURTAIN
TEAR-OFF PATCH
WALKWAY
CMB 25 66 11 4 ACM0 00

Rear Slide Pack - Separation from Aircraft
Figure 402

EMERGENCY EVACUATION ALERT - DESCRIPTION AND OPERATION

1. General

The emergency evacuation alert system provides audible and visual warnings for the flight crew and cabin crew in the event of an impending emergency evacuation of the aircraft. It also permits remote control of the flight compartment visual warning by the cabin crew in the event of any hazard that may occur in the passenger cabin.

The system consists of audible indicators (Horns) and flasher indicators (Flashing lights) in the flight compartment and in each of the three vestibules. It is controlled from the pilots' roof panel or, under certain switch settings, it may also be controlled from that position or from a panel in the forward vestibule. After operation, each audible indicator (Horn) can be cancelled independently by its associated push switch.

The flasher indicator in the flight compartment can be individually controlled from the forward vestibule panel.

2. Flight Compartment Panels

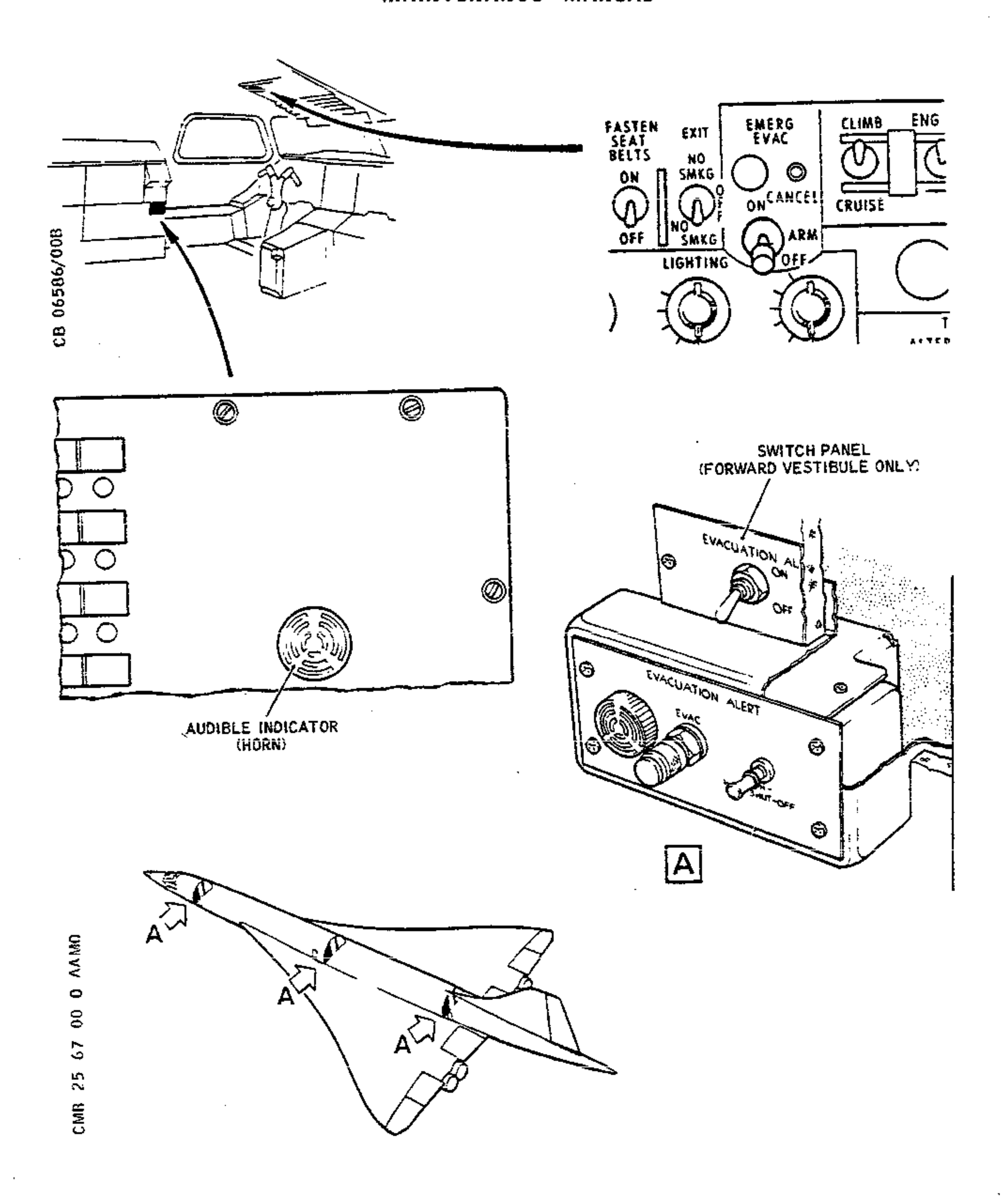
Controls in the flight compartment are located on the EMERG EVAC section of the pilots roof panel 4-211 (Ref. Fig.001 and 002). Also on the panel is a flasher indicator, comprising an integral flasher unit and, in the knob, dual filaments which can be renewed from the front of the panel.

An audible indicator (Horn) is located on panel 5-213 at the 4CM position. The indicator consists of a nylon case housing an electronic buzzer that emits a high-pitch pulsating tone. It has a threaded mounting boss with a slotted front face and is attached to the panel by a knurled nylon ring.

3. Vestibule Panels

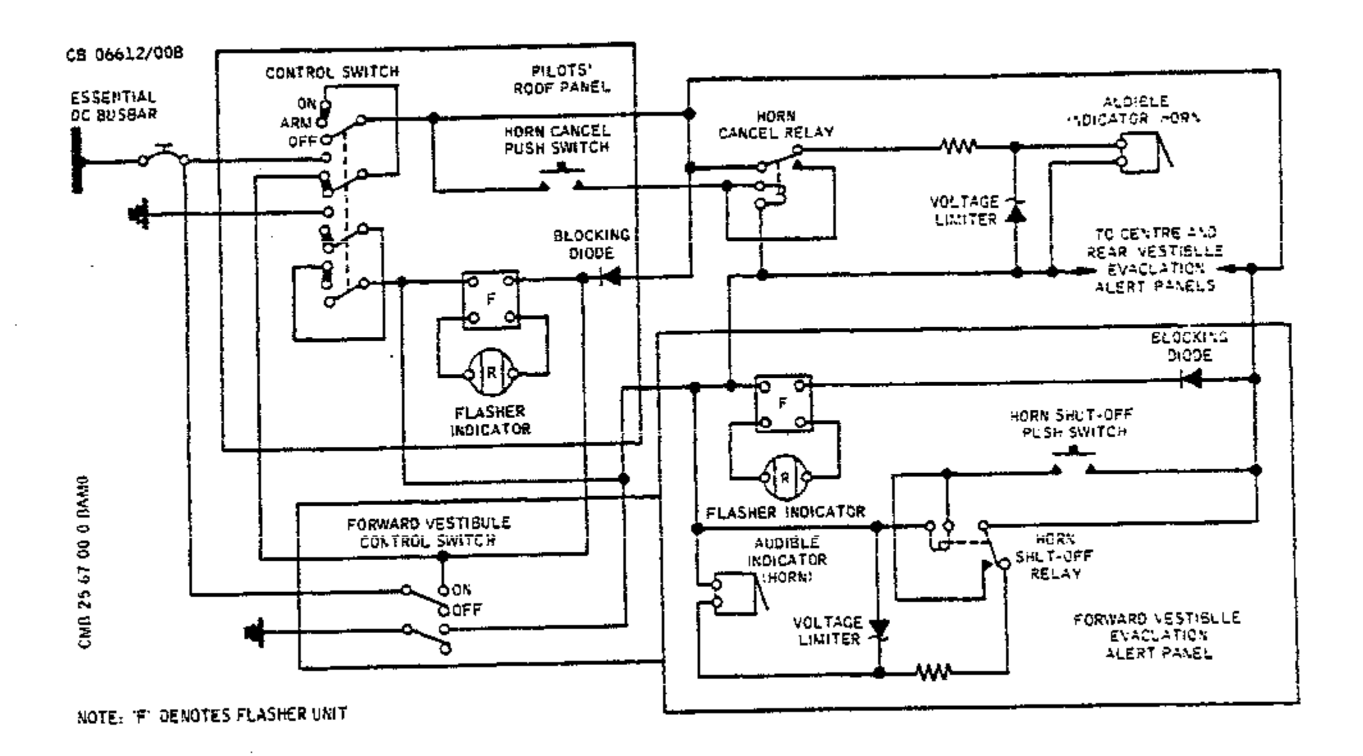
Three identical EVACUATION ALERT panels are located one in each vestibule, and a switch panel is positioned immediately above the evacuation alert panel in the forward vestibule (Ref. Fig.001 and 002).

Each evacuation alert panel includes a flasher indicator and an audible indicator (Horn) with its adjacent push button, similar to those in the flight compartment. The panel is secured to the vestibule bulkhead.



Emergency Evacuation Alert System
Figure 001

R



\- Emergency Evacuation Alert - Simplified
Schematic Diagram
Figure 002

4. Operation

With the control switch on the EMERG EVAC section of the pilot's roof panel "ON", electrical power is supplied via voltage limiters to the audible indicators in the flight compartment and in each of the vestibules. These indicators emit a high pitched tone pulsating at a rate determined by terminal voltage.

R B NOTE: Post Mod 25D393 the Passenger Cabin Audible
R B Indicators will emit a warbling sound. The Flight
R B Deck Audible Indicator is not affected by this mod.

Simultaneously, the flasher indicators in the flight compartment and the vestibules, illuminate red, periodically, at a rate which is controlled by the associated flasher unit. Pressing the audible indicator (Horn) CANCEL push switch disconnects the supply to the associated indicator and is then held closed via its own contacts, thereby maintaining

silence of the audible indicator on release of the push switch. The audio warning circuit so de-activated can only be re-energized by switching off the supply then restoring it. The silencing facilities have no influence on the flasher indicators.

With the control switch on the pilot's roof panel at ARM, the system can also be similarly controlled from the control switch in the forward vestibule. Once the system is operating, pressing the PUSH - HORN SHUT-OFF switch on any vestibule EVACUATION ALERT panel cancels the audible indicator (Horn) on that panel only.

If the control switch on the pilots' roof panel is at OFF, selecting "ON" on the control switch in the forward vestibule energizes the pilots' roof panel visual indicator, which flashes in the normal manner. The associated audible indicator (Horn) and the rest of the system remain de-energized due to the blocking diode.

Blocking diodes in each sub-circuit inhibit feedback from the associated flasher units. The Zener diode and resistor associated with each audible indicator (Horn) produces the pulsating tone.

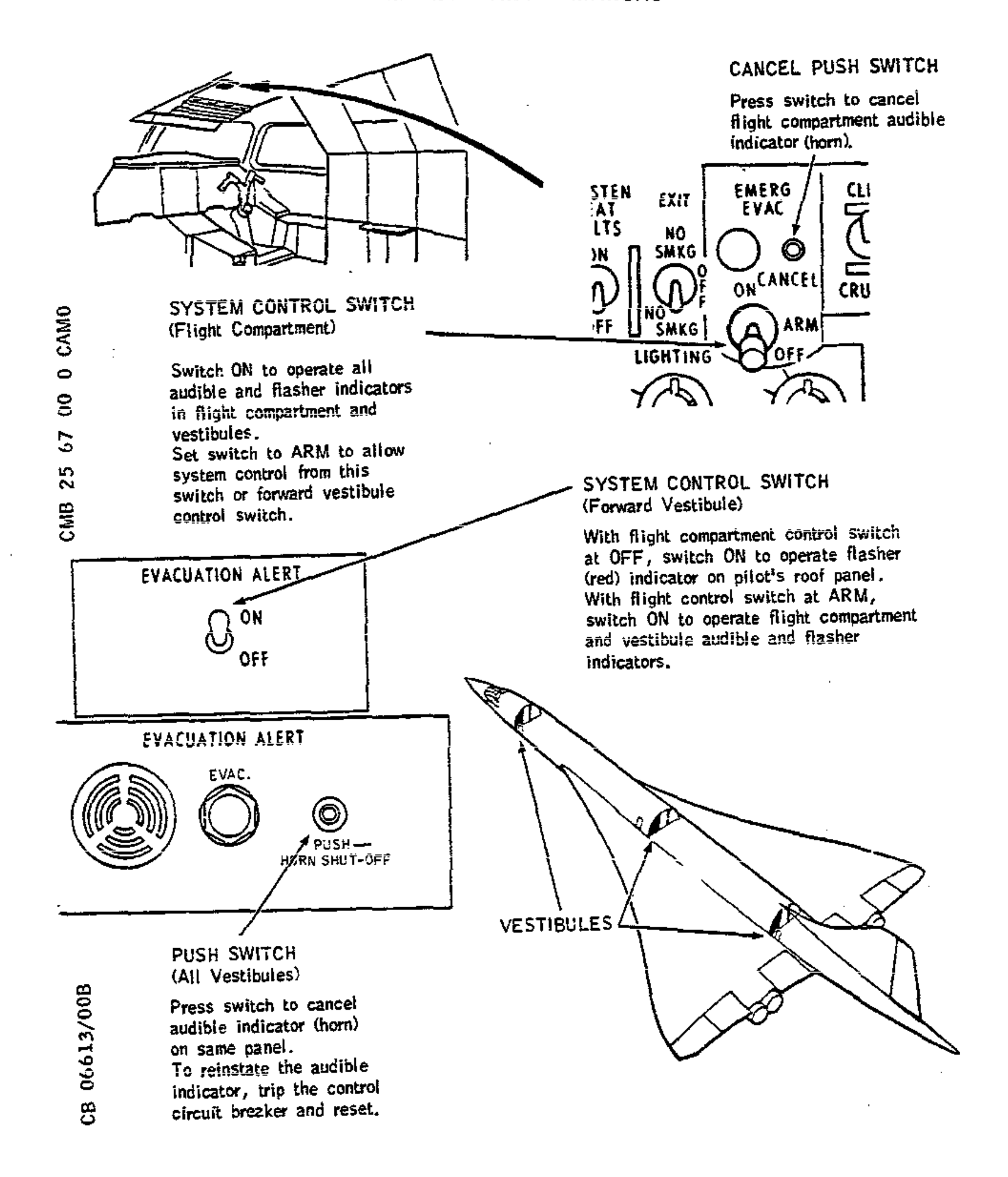
5. System Management (Ref. Fig. 003)

Management of the system is carried out from the EMERG EVAC section of the pilot's roof panel in the flight compartment, from the EVACUATION ALERT panel at each of the three vestibules and by the EVACUATION ALERT switch at the forward vestibule. To carry out these procedures, electrical ground power must normally be connected to the aircraft.

6. Power Supplies

All power supplies for equipment in the emergency evacuation alert system are from the 28V d.c. 'A' essential busbar via panel 1-213.

Printed in England



Emergency Evacuation Alert - System Management
Figure 003

R

EMERGENCY EVACUATION ALERT SYSTEM - TROUBLE SHOOTING

1. General

Faults are dealt with on a probability basis and identified as a result of testing.

The defect can be isolated with the aid of trouble shooting procedures (Ref. para.3), and traced through IF OK and IF NOT OK paths to the appropriate charts or other specified rectification action as may be necessary. If a defect occurs, perform the appropriate rectification action, then repeat the operation at which the defect was encountered to ensure that the operation is OK.

Bracketed numbers in the procedures and charts indicate items on the component identification table (Ref. Table 101). The table provides information, including component location, required for rectification. Component location also indicates the possible necessity of repositioning certain items of ground service equipment. Each chart also specifies the ground equipment required for that particular task.

All procedures dealing with trouble shooting are based on the assumption that electrical wiring is serviceable, and that electrical power is available, unless otherwise stated. If the fault is not rectified, check the wiring in accordance with the Wiring Diagram Manual (Ref. Table 101).

2. Preparation

A. Ensure that circuit breaker W591, map ref. S21 on panel 1-213 is set.

B. Make available electrical ground power (Ref. 24-41-00).

C. Advise all personnel on the aircraft and in the immediate vicinity, that work on the Emergency Evacuations Alert System is about to commence, and that operation of the system is to be ignored until completion of the trouble shooting.

R 3. Trouble Shooting

A.
```
*****************************************
*Prepare to trouble shoot  (Ref. para.2)*
*Ensure that the forward vestibule s/w  *
*is selected OFF. Select EMERG EVAC s/w *
*to ON-audible and flasher indicators in*
*flight compt. and each vestibule       *
```

```
*operate.                                *
******************************************
        ||         |
        ||         |     ---------------------------------------
        ||         |     |1. If none operating - check that   |
        ||         |     |   CB W591 has tripped. Reset        |
        ||         |     |2. Change switch (10). Retest.       |
        ||         |     |                                     |
        ||         |     |3. A flasher indicator is not        |
        ||         |     |   operating - chart 101.            |
        ||         |     |4. An audible indicator is not       |
        OK      NOT OK   |   operating - chart 102.            |
        ||         |-----|5. An audible indicator produces     |
        ||               |   the wrong tone - change ind.      |
        ||               |   (6),(7),(8),(9).                  |
        ||               |6. A flasher indicator flashes at    |
        ||               |   the wrong periodicity then        |
        ||               |   fails - change ind.(2),(3),(4),   |
        ||               |   (5).                              |
        ||               ---------------------------------------
        ||
B. ******************************************
   *Press audible indicator CANCEL push s/w*
   *at 4-211 and HORN SHUT-OFF push s/w at *
   *each vestibule in turn - check that    *
   *applicable audible indicator ceases to *
   *operate as the push is pressed.        *
   ******************************************
        ||         |
        ||         |     ---------------------------------------
        OK      NOT OK   |1. An audible indicator continues   |
        ||         |-----|   to operate - chart 103.           |
        ||               ---------------------------------------
        ||
C. ******************************************
   *Select EMERG EVAC s/w to OFF - check   *
   *that all flasher indicators cease to   *
   *operate.                               *
   ******************************************
        ||         |
        ||         |
        ||         |     ---------------------------------------
        OK      NOT OK   |1. Flasher indicators continue to   |
        ||         |-----|   flash - change switch (10) on     |
        ||               |   panel 4-211. Retest.              |
        ||               ---------------------------------------
        ||
D. ******************************************
   *Select EMERG EVAC s/w on panel 4-211 to*
```

```
*ARM-check that all audible and flasher *
*indicators remain inactive.            *
*****************************************
      ||        |
      ||        |            -----------------------------------
      OK      NOT OK        |1. An audible or flasher indicator|
      ||        |-----------|   operates - change s/w (10) on  |
      ||                    |   panel 4-211. Retest.           |
      ||                     -----------------------------------
      ||
E. *****************************************
   *Select forward vestibule s/w ON - check*
   *that all audible and flasher indicators*
   *operate.                               *
   *****************************************
      ||        |
      ||        |            -----------------------------------
      OK      NOT OK        |1. If none are operating - check  |
      ||        |-----------|   that CB W591 has tripped.      |
      ||                    |   Reset.                         |
      ||                    |2. Change s/w (12). Retest.       |
      ||                     -----------------------------------
      ||
F. *****************************************
   *Press audible indicator CANCEL push s/w*
   *at each vestibule in turn - check that *
   *applicable audible indicator ceases to *
   *operate as the push is pressed.        *
   *****************************************
      ||        |
      ||        |            -----------------------------------
      OK      NOT OK        |1. Audible indicator continues to |
      ||        |-----------|   operate - chart 103.           |
      ||                     -----------------------------------
      ||
G. *****************************************
   *Select EMERG EVAC s/w on panel 4-211 to*
   *OFF position - check that flasher indi-*
   *cator at panel 4-211 only is operative *
   *****************************************
      ||        |
      ||        |
      ||        |            -----------------------------------
      OK      NOT OK        |1. All flasher and audible indi-  |
      ||        |-----------|   cators operate - change diode  |
      ||                    |   (11) behind panel 4-211.       |
      ||                    |   Retest.                        |
      ||                     -----------------------------------
      ||
H. *****************************************
   *Select forward vestibule s/w to OFF    *
```

```
*position - check that flasher indicator*
*at panel 4-211 ceases to operate.      *
*****************************************
                  |
                  |          ------------------------------------
               NOT OK       |1. Flasher indicator at panel     |
                  |---------|   4-211 continues to operate -   |
                            |   change s/w (12). Retest.       |
                             ------------------------------------
```

```
*******************************
*A FLASHER INDICATOR FAILS TO *
*OPERATE WHEN ALL FOUR        *
*FLASHER INDICATORS SHOULD BE *
*OPERATING.                   *
*******************************
```

GROUND EQUIPMENT REQUIRED DESCRIPTION	PART NO
Ground Power Supply	-
Multimeter	-

```
------------------                   ------------------                 ------------------
|EMERG EVAC S/W on|                  |Check for 28Volts|                |Renew flasher     |
|panel 4-211 at ON|-YES-             |d.c. at terminal |-YES-           |indicator (2),    |
|-check that all  |                  |1 of the inactive|                |(3),(4),(5) as    |
|audible and three|                  |flasher indicator|                |applicable.       |
|other flasher    |                  ------------------                 ------------------
|indicators are   |                          |
|operating.Cancel |                          NO
|the four audible |                          |
|indicators from  |                  ------------------                 ------------------
|their respective |                  |Check for 28Volts|                |                  |
|CANCEL push S/W. |                  |d.c. at terminal |-YES-           |Renew diode.      |
------------------                   |1 of associated  |                |                  |
                                     |diode (11), at   |                ------------------
                                     |panel (13), at   |
                                     |panel (14), at   |
                                     |panel (15),      |
                                     ------------------
```

CHART 101

AN AUDIBLE INDICATOR DOES NOT OPERATE.

GROUND EQUIPMENT REQUIRED	
DESCRIPTION	PART NO
Ground Power Supply	-
Multimeter	-

Select EMERG EVAC Control s/w on panel 4-211 to ON -check that all flasher indicators are operating. Cancel the three "S" audible indicators by pressing the respective push s/w.

-YES-

Check for maximum voltage not exceeding 24V d.c. at "+" terminal of inactive audible indicator. -YES- Renew audible indicator (6), (7), (8), (9).

NO

The voltage is in excess of 24Volts d.c. -YES- Renew Zener diode (16) in relevant evacuation alert panel.

NO

Check for 28Volts d.c. at terminal 1 or 9 of associated resistor. -YES- Renew resistor (17).

NO

Check for 28Volts d.c. at terminal 6 of associated relay. -YES- Renew relay (18), (19),(20),(21).

CHART 102

```
*******************************
*AN AUDIBLE INDICATOR DOES NOT*
*CEASE TO OPERATE WHEN CANCEL *
*PUSH S/W IS PRESSED.         *
*******************************
```

GROUND EQUIPMENT REQUIRED DESCRIPTION	PART NO
Ground Power Supply	-
Multimeter	-

```
-------------------       -------------------       -------------------
|Press CANCEL or  |       |Check for 28Volts|       |Renew relay (18),|
|HORN SHUT-OFF    |       |d.c. at terminal |       |(19),(20),(21).  |
|push s/w while   |-YES-|3 of associated  |-YES-|                 |
|the associated   |       |relay.           |       -------------------
|audible indicator|       -------------------
|is operating.    |                |
-------------------               NO
                                   |
                          -------------------       -------------------
                          |Check for 28Volts|       |Renew relay (18),|
                          |d.c. at terminal |-YES-|(19),(20),(21).  |
                          |8 of associated  |       |                 |
                          |relay.           |       -------------------
                          -------------------
                                   |
                                  NO
                                   |
                          -------------------
                          |Replace assoc.   |
                          |push s/w (22),   |
                          |at panel (13),   |
                          |at panel (14),   |
                          |at panel (15).   |
                          -------------------
```

CHART 103

ITEM NO. AND DESCRIPTION	ACCESS PANEL	PANEL/ ZONE	EQUIP. IDENT.	POSITION	MANUAL REF. MAINT. TOPIC	WIRING DIAGRAM
(1) Circuit Breaker 28 V	-	1-213	W591	Map ref. S21	24-50-00 R/I	25-67-11
(2) Flasher Indicator	-	4-211	W593	Pilots' roof panel	27-67-00 R/I	25-67-11
(3) Flasher Indicator	-	221	on W595	Forward Vestibule	25-67-12 R/I	25-67-11
(4) Flasher Indicator	-	223	on W596	Centre Vestibule	25-67-12 R/I	25-67-11
(5) Flasher Indicator	-	241	on W597	Rear Vestibule	25-67-12 R/I	25-67-11
(6) Audible Indicator	-	5-213	W599	4th CM CB Panel	25-67-11 R/I	25-67-11
(7) Audible Indicator	-	221	on W595	Forward Vestibule	25-67-12 R/I	25-67-11
(8) Audible Indicator	-	223	on W596	Centre Vestibule	25-67-12 R/I	25-67-11
(9) Audible Indicator	-	241	on W597	Rear Vestibule	25-67-12 R/I	25-67-11
(10) Flight Compartment Control Switch	-	4-211	W592	Pilots' Roof Panel	25-67-00 R/I	25-67-11
(11) Diode	-	4-211	W603	Pilots' Roof Panel	25-67-00 R/I	25-67-11
(12) Forward Vestibule Control Switch	-	221	W598	Forward Vestibule	25-67-00 R/I	25-67-11
(13) Evacuation Alert Panel	-	221	W595	Forward Vestibule	25-67-12 R/I	25-67-11

ITEM NO. AND DESCRIPTION	ACCESS PANEL	PANEL/ ZONE	EQUIP. IDENT.	POSITION	MANUAL REF. MAINT. TOPIC	WIRING DIAGRAM
(14) Evacuation Alert Panel	-	223	W596	Centre Vestibule	25-67-12 R/I	25-67-11
(15) Evacuation Alert Panel	-	241	W597	Rear Vestibule	25-67-12 R/I	25-67-11
(16) Zener Diode	-	5-213	W602	4th CM CB Panel	25-67-11 R/I	25-67-11
(17) Resistor	-	5-213	W601	4th CM CB Panel	25-67-11 R/I	25-67-11
(18) Relay	-	5-213	W594	4th CM CB Panel	25-67-11 R/I	25-67-11
(19) Relay	-	221	in W595	Forward Vestibule	25-67-12 R/I	25-67-11
(20) Relay	-	223	in W596	Centre Vestibule	25-67-12 R/I	25-67-11
(21) Relay	-	241	in W597	Rear Vestibule	25-67-12 R/I	25-67-11
(22) Push Switch	-	4-211	W600	Pilots' Roof Panel	25-67-00 R/I	25-67-11

Component Identification
Table 101

EMERGENCY EVACUATION ALERT - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

This topic contains instructions for the removal and
installation of the emergency evacuation alert (EEA) switches
R and flasher indicator unit on the pilots' roof panel (4-211).

The switches and indicator are mounted from the rear of the
R panel. Electrical connections to the flasher indicator unit
are made to screw-type terminals, to the toggle switch by
socket type terminals and to the push button switch by flying
leads.

R 2. Switches and Flasher Indicator Unit - Flight Compartment Roof
R Panel (Ref. Fig. 401)

CAUTION: ELECTROLUMINESCENT PANELS ARE VULNERABLE TO DAMAGE BY SCRATCHING AND CRACKING. DURING THE FOLLOWING OPERATIONS HANDLE THE PANEL WITH CARE.

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clips	-
Insertion/extraction tool (Red for insert; white for extract)	NAS1664-20 or M15570-20

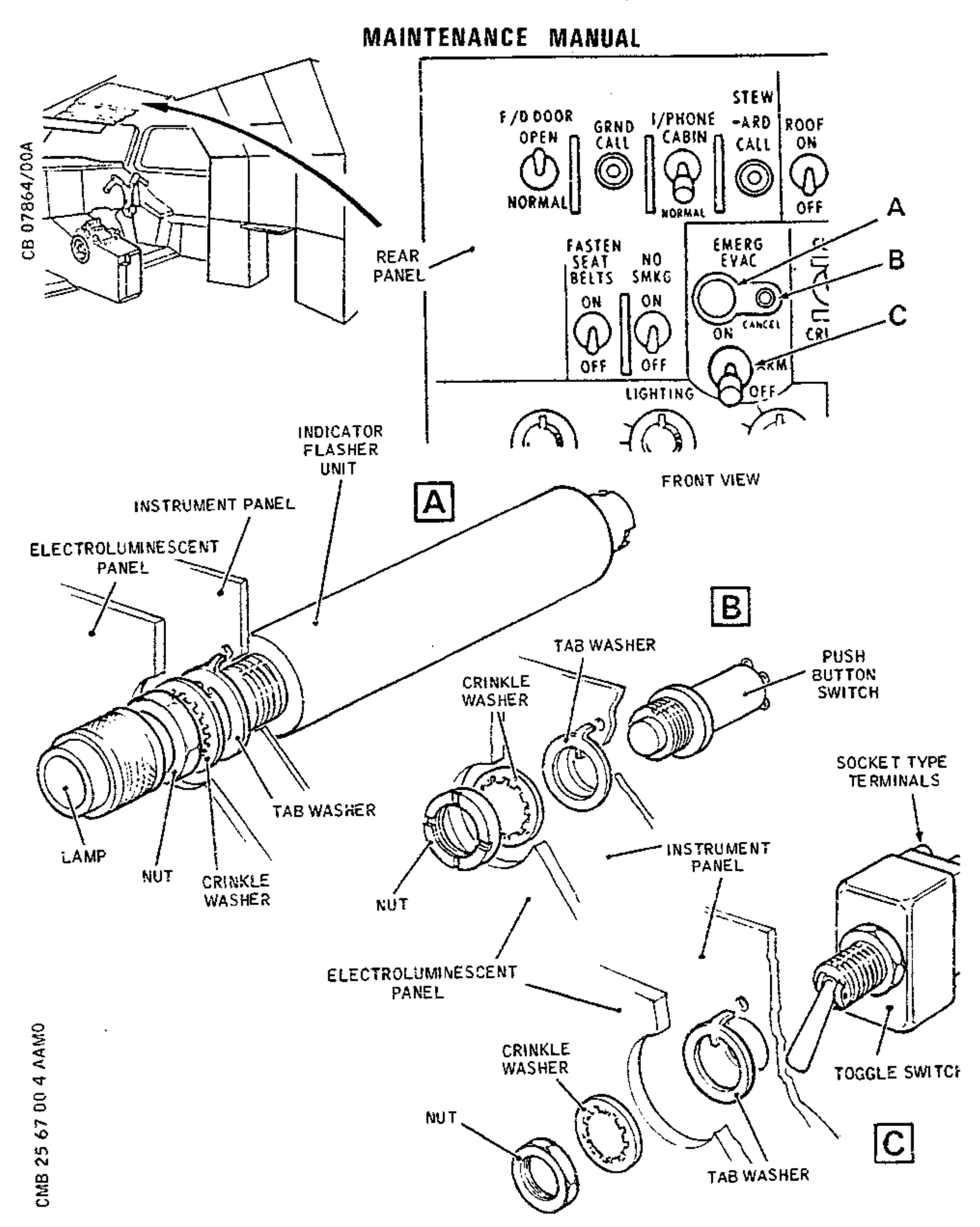
B. Prepare

(1) Isolate the electrical generation and external power supplies as detailed in 24-00-00, Servicing.

(2) Lower the rear panel of the flight compartment roof
panel on its hinges to gain access to the EMERG EVAC
R switches and flasher indicator unit.

B. Remove Toggle Switch (Electrical ident W592).

R (1) Using a contact extraction tool, remove the pin
R inserts from the socket type terminals at the back



Emergency Evacuation Alert Minor Electrical
Components - Installation
Figure 401

of the switch.

(2) Remove the nut, crinkle washer and tab washer securing the switch and withdraw the switch from the rear of the panel.

C. Install Toggle Switch (Electrical ident W592)

(1) Comply with the electrical safety precautions.

(2) Insert the switch in the aperture from the rear of the panel and position the tab washer on the switch; engage the tab on the washer in the locating hole in the panel. Secure the switch with the nut and crinkle washer.

(3) Using a contact insertion tool, connect the electrical cables to the terminal sockets ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

D. Remove Push Button Switch (Electrical Ident W600)

(1) Release the flying leads from the loom ties and, using a contact extraction tool, withdraw the pin inserts from the module block.

(2) Remove the nut, crinkle washer and tab locating washer and withdraw the switch from the rear of the panel.

E. Install Push Button Switch (Electrical Ident W600)

(1) Comply with the electrical safety precautions.

(2) Insert the switch in its aperture from the rear of the panel and secure it with the locating tab washer, crinkle washer and nut.

(3) Using a contact insertion tool, connect the flying leads from the switch to the module block, ensuring that the connections are made in accordance with the cable identifications and the applicable wiring diagram.

(4) Secure the flying leads to the cable loom with suitable ties in accordance with 20-27-15.

F. Remove Flasher Indicator Unit (Electrical Ident W593)

(1) Disconnect the electrical cables from the screw-

type terminals.

R (2) Unscrew and remove the head of the flasher indicator unit.

(3) Remove the nut, crinkle washer and tab locating washer and withdraw the unit from the rear of the panel.

R G. Install Flasher Indicator Unit (Electrical Ident W593)

(1) Comply with the electrical safety precautions.

(2) Insert the unit into its aperture from the rear of the panel and secure it with the tab locating washer, crinkle washer and nut.

R (3) Screw the head on to the flasher indicator unit.

(4) Connect the electrical cables to the switch ensuring that the connections are made in accordance with the cable identification and the applicable wiring diagram.

H. Conclusion.

(1) Check that all loose articles and debris have been removed from behind the panel and ensure that all wiring is clear of the panel hinge line.

(2) Close and secure the panel.

(3) Carry out an operational test of the emergency evacuation alert (Ref.25-67-00, Adjustment/Test).

EMERGENCY EVACUATION ALERT SYSTEM - ADJUSTMENT/TEST

NOTE: Advise all personnel on the aircraft and in its immediate vicinity that this test is being undertaken and that horn warnings in the flight compartment and in each of the vestibules are to be ignored during the test.

1. General

Control switches for the emergency evacuation alert system are located on the EMERG EVAC section of the pilots' roof panel 4-211 in the flight compartment, and on a panel in the forward vestibule. The audio and flasher indicators are generally located on the pilots' roof panel and on the EVACUATION ALERT panel in each vestibule, except for the flight compartment audible indicator which is on panel 5-213 at the 4CM position.

2. Emergency Evacuation Alert - Operational Test

A. Prepare

(1) Make available electrical ground power (Ref. 24-41-00).

B. Test Flight Compartment Controls

(1) Set the EMERG EVAC control switch on panel 4-211 to "ON". Check that the flasher indicator on the panel, and in each vestibule, regularly pulsate red of equal brilliance and that the audio indicator on panel 5-213 and in each vestibule emit a high-pitch pulsating tone of equal intensity.

(2) Press the audible indicator CANCEL push switch on panel 4-211. Check that only the audio indicator on panel 5-213 is silenced; all other indicators are to remain active.

(3) Set the control switch to "OFF". Check that all audio and flasher indicators are inactive.

(4) Set the control switch to "ARM". Check that no indicators are active.

C. Test Vestibule Panel Controls

(1) With the pilots' roof panel control switch at ARM, set the switch on the forward vestibule control panel to "ON". Check that the audio and flasher indicators in the flight compartment and all

vestibules are active.

(2) Set the control switch on panel 4-211 to "OFF", and the forward vestibule control switch to "ON". Check that only the flight compartment flasher indicator is active.

(3) Set the control switch on panel 4-211 to "ON". Check that pressing the PUSH - HORN SHUT-OFF push switch on the EVACUATION ALERT panel in each vestibule silences only the audio indicator on that panel, and that all the remaining indicators are active except those already silenced.

(4) Set the control switch on panels 4-211 to "OFF"; check that only the flight compartment flasher indicator is active. Move the switch to "ON"; check that all indicators are active.

(5) Switch the control on the pilots roof panel and in the forward vestibule to "OFF".

D. Conclusion

(1) Switch off and disconnect electrical ground power (Ref. 24-41-00).

1. Emergency Evacuation Alert - System Test

A. Prepare

(1) Make available electrical ground power (Ref. 24-41-00).

Test

(1) Select the EMERG EVAC control switch, on panel 4-211, to "ON"; check that:

R B NOTE: Post Mod 25D393 the Passenger Cabin Audible
R B Indicators will emit a warbling sound. The Flight
R B Deck Audible Indicator is not effected by this mod.

(a) the audible indicators at panel 5-213, and at each of the three vestibules, operate and emit a high-pitched pulsating tone of equal intensity.

(b) the flasher indicators at 4-211, and at each of the three vestibule panels, flash red with equal brilliance and at regular intervals of similar frequency.

(2) Press the CANCEL push switch on panel 4-211 momentarily; check that the audible indicator on panel 5-213 ceases to operate.

(3) Press the HORN SHUT-OFF push switch at each of the three vestibules in turn; check that the audible indicator at each respective EVACUATION ALERT panel ceases to operate as the push switch is pressed.

(4) Check that the flasher indicators at 4-211, and at each of the vestibule EVACUATION ALERT panels, continue to flash.

(5) Select the EMERG EVAC control switch, on panel 4-211, away from, then back to "ON"; check that all the audible and flasher indicators function as in Operations 1(a) and 1(b).

(6) Select the EMERG EVAC control switch, on panel 4-211 to "ARM"; check that:

(a) all the audible indicators cease to operate.

(b) all the flasher indicators extinguish.

(7) Select the EVACUATION ALERT switch, at the forward vestibule, to "ON"; check that all audible and flasher indicators function as in Operations 1(a) and 1(b).

(8) Press the CANCEL push switch on panel 4-211 momentarily; check that the audible indicator on panel 5-213 ceases to operate.

(9) Momentarily press the HORN SHUT-OFF push switch at each of the three vestibules in turn; check that the audible indicator at each respective EVACUATION ALERT panel ceases to operate as the switch is pressed.

(10) Check that the flasher indicators at 4-211, and at each of the vestibule EVACUATION ALERT panels, continue to flash.

(11) Select the EVACUATION ALERT switch on the forward vestibule to "OFF" then back to "ON"; check that all the audible and flasher indicators function as in Operations 1(a) and 1(b).

(12) Select the EVACUATION ALERT switch on the forward vestibule, to "OFF"; check that:

(a) all the audible indicators cease to operate.

(b) all the flasher indicators extinguish.

(13) Select the EMERG EVAC control switch, on panel 4-211 to "OFF" and the EVACUATION ALERT switch, on the forward vestibule, to "OFF" and check that the flasher indicator on panel 4-211 extinguishes.

(14) Select the EVACUATION ALERT switch, at the forward vestibule to "OFF" and check that the flasher indicator on panel 4-211 extinguishes.

C. Conclusion

(1) Switch off and disconnect electrical ground power (Ref. 24-41-00).

AUDIBLE INDICATOR (FLIGHT COMPARTMENT) - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

The audible indicator is located on circuit breaker panel
R 5-213 and is connected electrically by two screw-type terminals.

2. Audible Indicator

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clip (if required)	-

B. Prepare

(1) Electrically isolate the generation and ground power equipment (Ref. 24-00-00, Servicing).

R (2) Remove the screws securing the panel and hinge down the panel.

C. Remove

(1) Disconnect the electrical cables from the terminal lugs by removing the attachment screws.

(2) Unscrew the knurled ring securing the indicator. Withdraw the indicator from the rear of the panel. Temporarily replace the ring on the indicator.

(3) If an indicator is not being installed immediately,
R trip the EMER EVAC ALERT SUP circuit breaker W591 on
R panel 1-213, map ref. S21 and fit a safety clip.

D. Install

(1) Comply with the electrical safety precautions.

(2) Remove the knurled ring from the indicator.

(3) Insert the indicator through the hole in the sub-panel from the rear of the panel ensuring that the flats on the indicator spigot engage with those of the sub-panel hole and secure it with the knurled ring.

(4) Connect the electrical cables to the indicator terminal lugs with the attachment screws in accordance with the cable identification and appropriate wiring diagram.

R (5) Remove the safety clip and reset the circuit breaker if previously tripped.

E. Conclusion

R (1) Check that all loose articles have been removed from behind the panel.

R (2) Close and secure the panel ensuring that no cable or other item is deformed when the panel is closed.

R (3) Cancel the electrical isolation requirements (Ref. 24-00-00, Servicing).

R (4) Operationally test the emergency evacuation alert system (Ref. 25-67-00, Adjustment/Test).

EVACUATION ALERT PANEL - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

An evacuation alert panel is installed in each of the three vestibules. Each panel is attached with four screws and electrically connected with a 12-way terminal block module.

2. Evacuation Alert Panel

A. Equipment and Materials

DESCRIPTION	PART NO.
Contact removal and insertion tool (red to insert, white to remove)	NAS 1664-20 or M15570-20
Circuit breaker safety clip	-

B. Remove

R (1) Trip the EMER EVAC ALERT SUP circuit breaker W591
R on panel 1-213, map ref. S21, and fit a safety clip.

(2) Remove the panel attachment screws.

(3) Withdraw the panel ensuring that the electrical cables are not tensioned.

(4) Using the contact removal tool, extract the contacts from the terminal block module.

R (5) Remove the panel.

C. Install

(1) Comply with the electrical safety precautions.

(2) Using the contact insertion tool, insert the contacts in the terminal block module in accordance with the cable identification and the appropriate wiring diagram.

(3) Place the panel in its position on the bulkhead and
R attach it with screws.

(4) Remove the circuit breaker safety clip and reset
R the circuit breaker previously tripped.

(5) Operationally test the emergency evacuation alert system (Ref. 25-67-00, Adjustment/Test).

ELECTRICAL/ELECTRONIC EQUIPMENT RACKING - DESCRIPTION AND OPERATION

1. General (Ref. Fig. 001)

Racking to accommodate electrical and electronic equipment
R is located:

R (1) At the rear of the flight compartment, LH side zone 215
R and RH side zone 216.

R (2) In the rear vestibule, LH side zone 243 and RH side zone
R 244.

R (3) In the underfloor equipment bay, zone 123. This racking comprises the weather radar crate, underfloor rack and inertial navigation system (INS) equipment crate.

R Within the racks, units of equipment of standard air transport racking (ATR) sizes and modules in Elfin cases are mounted on shelves, equipment trays and mounting racks. Cooling of each rack is effected by the air conditioning system (Ref.
R 21-21-00).

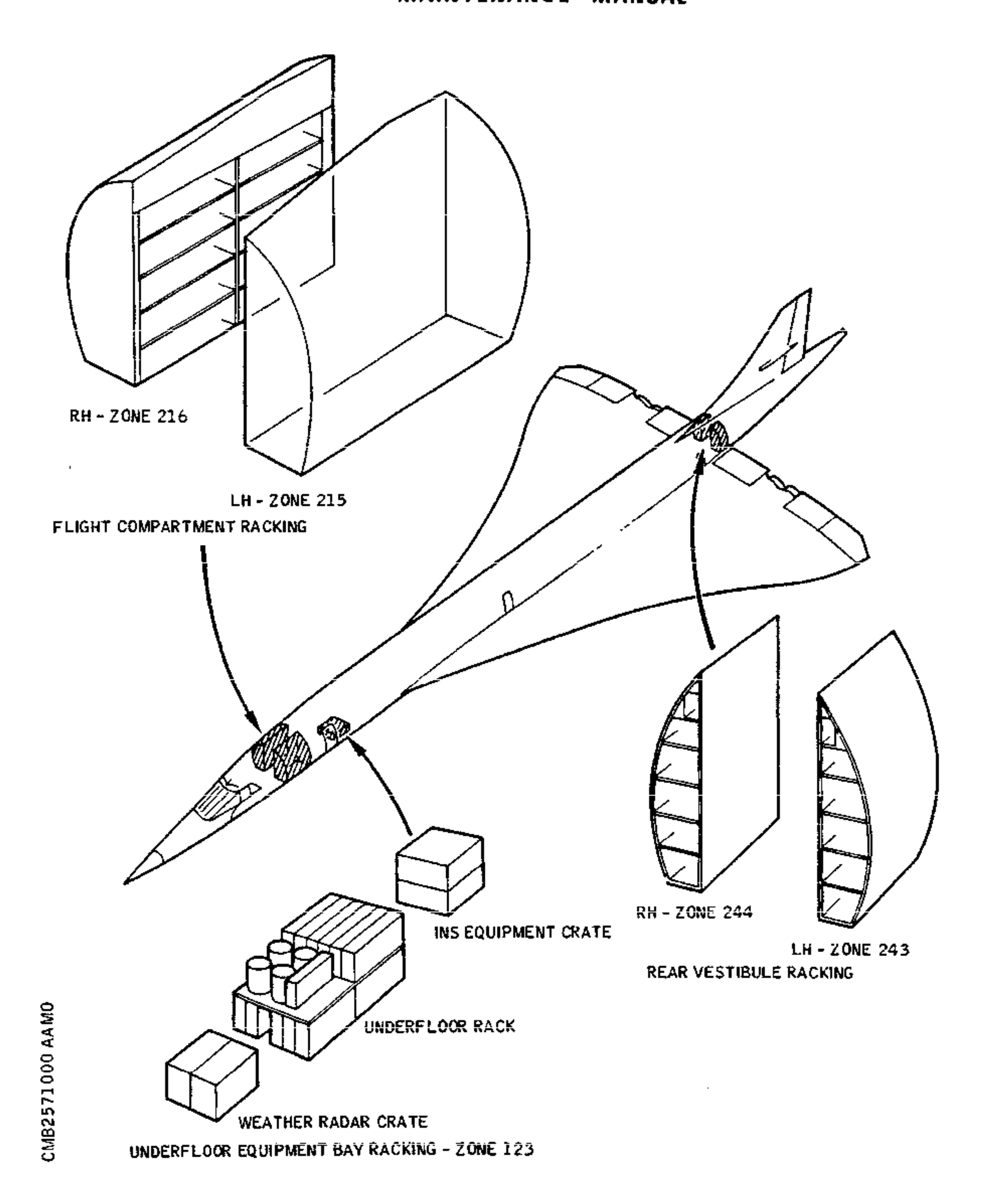
2. Equipment Location (Ref. Fig. 002, 003 and 004) (Ref. Fig. 005)

The location of equipment in the racking is shown in the referenced figures. The key numbers in the key to each figure are for ease of reference within this topic only and refer only to the figures. Some locations in the
R racking are provisionally allocated and wired for units of
R equipment not yet fitted; these are annotated 'S.P. only'
R (space provision only) in the keys and shown by dotted line
R in the figures.

3. Equipment Mountings (Ref. Fig. 006)

Mountings for racked equipment comprise shelves, equipment trays and mounting racks. Units of equipment are retained on the mountings by hold-down pins (spigots) and/or connectors at the rear of the mountings and by chassis retainers or hold-down screws at the front of the mounting. Bonding strips on the mounting contact the equipment unit casing and give additional electrical bonding for the unit to the mounting. The bonding strip and the unit case, in the contact area, must be clean and free from paint.

A. Shelves



Location of Equipment Racking
Figure 001

Racked equipment in the flight compartment racking, rear vestibule racking and upper compartment of the INS crate is mounted on shelves. Each shelf is identified by a number followed by a hyphen and the zone identification code, e.g., the shelf in the INS crate is identified as 26-123.

The shelves are bolted to runners in the racks and those in the flight compartment racking are located at the rear by spigots engaging spigot brackets on the shelves. Other shelves are located by stops on the runners. Shelves are electrically connected to the rack structure by bonding tags or earthing strips.

Some shelves embody junction boxes, the lids of which open to give access to the junction box wiring. Electrical supply to the shelf is through connectors on the junction box lid, and to the equipment, through rack connectors on the face of the junction box. Relays and other small electrical components are mounted on some junction box lids. Other shelves have backplates on which the connectors are mounted.

B. Equipment Tray

The weather radar crate has an equipment tray bolted
R to guide rails on the base of the crate. The tray is
R similar to a shelf and electrical supply to the equipment
R is through rack connectors on a backplate. Wave guides, connected to a coupling on the forward end of the crate, and a waveguide switch are mounted on the tray. The tray is electrically bonded to the crate with bonding tags.

C. Mounting Racks

Mounting racks are fitted to the lower compartment of the INS equipment crate and to the underfloor rack. Those in the INS equipment crate are attached to the base of the crate by attachment adjusters and connected to the base by an air duct flexible coupling. Electrical supply to INS equipment is through rack connectors on a mounting rack backplate.

The underfloor rack mounting racks are bolted to the rack structure and are electrically bonded to it by one attaching bolt on each mounting rack. These mounting racks have no backplate, the aircraft wiring being connected directly to each unit. A rear angle on each unit division of each rack has, in addition to hold-down pins, index pins which ensure that units of

equipment are mounted in the correct position on the rack.

4. Elfin Case (Ref. Fig. 007)

Elfin cases are cases of 1/4 ATR width which contain up to four modules and are mounted on some of the shelves. For normal maintenance purposes they are regarded as part of the shelf. The modules are removed and installed without disturbing the case which need be removed only when case renewal is necessary or if the shelf is to be removed.

The case is an open-fronted box with shelves to accommodate the modules. Holes in the rear of the case allow the module connectors to connect to the shelf rack connectors. The case is attached to the shelf by a bolt through the top of the case screwed into a captive nut on the shelf backplate, and by a hold-down/ejector on the shelf engaging a hold-down hook on the case. Pins on the case ejector hook pass under the shelf to ensure that, should the case be removed from the shelf complete with modules, the case is withdrawn horizontally until the rear connectors are disengaged. A button stop on the shelf backplate and a fixed distance piece on the case hold-down bolt hold the case clear of the shelf backplate. A label on the front of the case identifies the modules contained in the case.

5. Service Electrical Supply Connectors (Ref. Fig.003 and 004)

Three electrical supplies are available in the racking areas for use as required, e.g., for test equipment electrical supplies.

R A 200/115 V three-phase a.c. supply and a 28 V d.c. supply are available at panel 18-216 on the RH flight compartment racking, via associated electrical connectors. The a.c. supply is taken from No.4 main 200/115 V a.c. busbar and the d.c. supply is from the 'B' main 28 V d.c. busbar.

A 115 V single-phase a.c. supply is available at a connector on the rear vestibule racking structure, panel 7-243. This supply is taken from the No.1 main 200/115 V a.c. busbar, phase C.

R
R
R
R
R
R

	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
R	1	Air conditioning smoke detector amplifier - No.2	2H698	01-215	21-17-21
R	2	Engine internal overheat warning amplifier - No.2	2E173	01-215	77-22-11
R	3	Fuel heater control unit - No.2	2H1336	01-215	73-14-11
	4	Turbine blade temperature unit - S.P. only	-	01-215	-
R	5	Low speed (N1) governor amplifier - No.2	2K162	01-215	73-22-11
R	6	Spare	-	01-215	-
R	7	Engine speed unit	X223	01-215	24-22-22
R	8	Spare	-	01-215	-
R	9	Standby horizon static inverter	F122	01-215	34-22-12
R	10	Heat exchanger cooling - Master control unit - No.2	2H868	01-215	21-13-51
R	11	Generator control and protection unit - No.2	2X3	01-215	24-21-21
R	12	Vertical speed amplifer - No.1	1F96	01-215	34-11-17
R	13	Constant speed drive - load controller - No.2	2X314	01-215	24-11-21
R	14	Cabin temperature controller - No.2	H1024	01-215	21-61-21
R	15	Air conditioning smoke detector amplifier - No.1	1H698	02-215	21-17-21

PRINTED IN ENGLAND

	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
R	16	Engine internal overheat warning amplifier - No.1	1E173	02-215	77-22-11
R	17	Fuel heater control unit - No.1	1H1336	02-215	73-14-11
R	18	Flight control inverter protection unit - No.1	1C72	02-215	27-35-12
R	19	Low speed (N1) governor amplifier - No.1	1K162	02-215	73-22-11
	20	Spare	-	02-215	-
R	21	Flight control static inverter - No.1	1C70	02-215	27-35-11
R	22	Fire detection relay box	1 to 4 W653 1 to 4 W654	02-215	26-11-00
R	23	Fire detection control unit	W159	02-215	26-11-11
R	24	Heat exchanger cooling - Master control unit = No.1	1H868	02-215	21-13-51
R	25	Generator control and protection unit - No.1	1X3	02-215	24-21-21
R	26	Constant speed drive - load controller - No.1	1X314	02-215	24-11-21
	27	Turbine blade temperature control unit - S.P. only	-	02-215	-
R	28	Cabin temperature controller - No.1	H1023	02-215	21-61-21
R	29	Wheel overheat indicating amplifier	G336	02-215	32-43-51
	30	Radio navigation - S.P. only	-	03-215	-

KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
31	Radio navigation computer - S.P. only	-	03-215	-
32	Auto-chart system electronic unit - S.P. only	-	03-215	-
33	Radio navigation F.D.S.U.- S.P. only	-	03-215	-
34	VHF transceiver - No. 1	1R14	03-215	23-21-33
35	Marker beacon receiver	R40	03-215	34-33-12
36	Integral test and maintenance computer - No.1	1C381	04-215	22-42-11
37	FD1/FD2 Switching Unit - No.1	1C25	04-215	22-11-42
38	Warning and landing display computer - No.1	1C188	04-215	22-41-11
39	Electric trim computer - No.1	1C151	04-215	22-23-11
40	Autothrottle computer - No.1	1C171	04-215	22-31-11
41	Azimuth AP/FD computer - No.1	1C13	04-215	22-13-11
42	Pitch AP/FD computer - No.1	1C12	04-215	22-12-11
43	Passenger entertainment amplifier	R331	05-215	23-32-31
44	Passenger entertainment tape reproducer	R330	05-215	23-32-32
45	Spare	-	05-215	-

R

	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
R	46	ATC - Transponder - No.2	2S10	05-215	34-52-00
R	46A	ATC - Transponder - No.1	1S10	05-215	34-52-00
R					
R	47	TCAS Mode 'S' computer -	S85	05-215	34-43-00
	48	Engine control amplifier - No.2 main	2K20	06-215	76-11-11
	49	Engine control amplifier - No.1 alternate	1K21	06-215	76-11-11
	50	Artificial feel computer - No.1	1C235	06-215	27-32-44
	51	Safety flight control computer - No.1	1C650	06-215	27-39-11
	52	Ground proximity warning computer	W633	06-215	27-47-12
	53	Air data computer - No.1	1F71	06-215	34-11-41
	54	VOR-ILS & RAD-INS switching unit - No.1	1F24	07-215	34-23-13
	55	VOR receiver - No.1	1R24	07-215	34-55-31
	56	ILS receiver - No.1	1R37	07-215	34-36-31
	57	DME interrogator - No.1	1S1	07-215	34-51-33
	58	DME interrogator - No.2	2S1	07-215	34-51-33
R					
R					
R	59	Spare	-	07-215	-

KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
60	Spare			
61	Engine control amplifier - No.1 main	1K20	08-215	76-11-11
62	Engine control amplifier - No.2 alternate	2K21	08-215	76-11-11
63	Outer elevon neutralization computer - No.1	1C45	08-215	27-36-16
64	Flight control surface monitoring comparator - No.1	1C48	08-215	27-37-11

R
R
R

THIS PAGE LEFT INTENTIONALLY BLANK

	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
R	65	Autostabilization computer - No.1	1C31	08-215	22-22-11
	66	Data link - S.P. only	-	08-215	-
R	67	Brakes overload control unit	G218	09-215	32-43-57
R	68	Standby instruments static inverter - 115V AC	X140	09-215	24-24-12
R	69	Anti-skid control unit	G200	09-215	32-43-31
R	70	NTRC (Bucket control unit) - No.1	1K1122	10-215	78-31-85
R	71	Flight compartment temperature comparison unit	H1027	10-215	21-61-14
R	72	NTRC (Bucket control unit) - No.2	2K1122	10-215	78-31-85
	73	Turbine blade temperature control unit - S.P. only	-	10-215	-
R	74	Air conditioning overheat safety box - No.1	1H649	10-215	21-12-71
R	75	Nozzle angle scheduling unit - No.1 Engs.1 & 4	K1123	10-215	78-31-84
R	76	Air intake sensor unit - No.1	1K1801	10-215	71-61-11
R	77	Nose wheel steering electronic unit	G96	10-215	32-51-32
R	78	Cabin pressure control amplifier - No.1	H1146	10-215	21-35-43
R	79	Air intake sensor unit - No.2	2K1801	10-215	71-61-11
R	80	Air conditioning overheat safety box - No.2	2H649	10-215	21-12-71

	KEY NO.	EQUIPMENT	EQUIP. IDENT	SHELF	CHAP. REF.
	81	Turbine blade temperature control unit - S.P. only	-	10-215	-
R	82	Track heading unit - No.1	1F142	10-215	34-23-61
R	83	Windshield and visor glazing temperature controller - No.1	1H149	10-215	30-41-11
R	84	Ice detector relay unit	1H102	10-215	30-81-11

Equipment in LH Flight Compartment Racking (Ref.Fig.2)
Table 1

	KEY NO.	EQUIPMENT	EQUIP, IDENT.	SHELF	CHAP. REF.
R	1	Engine vibration indicator power supply unit	E518	02-216	77-33-12
R	2	Constant speed drive-load controller - No.4	4X314	02-216	24-11-21
	3	Turbine blade temperature control unit - S.P. only	-	02-216	-
R	4	Cabin temperature controller - No.4	H1026	02-216	21-61-21
R	5	Generator control and protection unit - No.4	4X3	02-216	24-21-21
R	6	Heat exchanger cooling - master control unit - No.4	4H868	02-216	21-13-51
R	7	Spare	-	02-216	-
R	8	Fuel centre-of-gravity pack - main	Q1343	02-216	28-44-81
R	9	Fuel level switching pack - RH	Q1351	02-216	28-42-51

	KEY NO.	EQUIPMENT	EQUIP IDENT.	SHELF	CHAP. REF.
R	10	Flight control static inverter - No.2	2C70	02-216	27-35-11
R	11	Fuel heater control unit - No.4	4H1336	02-216	73-14-11
R	12	Flight control inverter protection unit - No.2	2C72	02-216	27-35-12
R	13	Low speed (N1) governor amplifier - No.4	4K162	02-216	73-22-11
	14	Spare	-	02-216	-
R	15	Air conditioning smoke detector amplifier - No.4	4H698	02-216	21-17-21
R	16	Engine internal overheat warning amplifier - No.4	4E173	02-216	77-22-11
R	17	Engine internal overheat warning amplifier - No.3	3E173	01-216	77-22-11
R	18	Fuel flow rate - electronic unit	E480	01-216	73-33-16
R	19	Vertical speed amplifier - No.2	2F96	01-216	34-11-17
R	20	Constant speed drive-load controller - No.3	3X314	01-216	24-11-21
R	21	Cabin temperature controller - No.3	H1025	01-216	21-61-21
R	22	Generator control and protection unit - No.3	3X3	01-216	24-21-21
R	23	Heat exchanger cooling Master control unit - No.3	3H868	01-216	21-13-51
R	24	Spare	-	01-216	-
R	25	Spare	-	01-216	-
R	26	Nozzle angle scheduling unit - No.2 Engs.2 & 3	K1124	01-216	78-31-84

	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
R	27	Ground power protection unit	X20	01-216	24-41-11
R	28	Fuel heater control unit - No.3	3H1336	01-216	73-14-11
	29	Turbine blade temperature control unit - S.P.only	-	01-216	-
R	30	Low speed (N1) governor amplifier - No.3	3K162	01-216	73-22-11
	31	Spare	-	01-216	-
R	32	NTRC (Bucket control unit) - No.3	3K1122	01-216	78-31-85
R	33	NTRC (Bucket control unit) - No.4	4K1122	01-216	78-31-85
R	34	Pitch AP/FD computer - No.2	2C12	04-216	22-12-11
R	35	Azimuth AP/FD computer - No.2	2C13	04-216	22-13-11
R	36	Autothrottle computer - No.2	2C171	04-216	22-31-11
R	37	Electric trim computer - No.2	2C151	04-216	22-23-11
R	38	Warning and landing display computer - No.2	2C188	04-216	22-41-11
R	39	FD1/FD2 Switching Unit - No.2	2C25	04-216	22-11-42
R	40	Integral test and maintenance computer - No.2	2C381	04-216	22-42-11
R	41	Flight data acquisition unit - No.2	R260	03-216	31-31-14
	42	Airborne integrated data system flight recorder - S.P. only	-	03-216	-

	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
R	43	Flight data long term recorder	R259	03-216	31-31-21
R	44	Logic unit - S.P.only	-	03-216	-
R	45	Flight data acquisition unit - No.1	R261	03-216	31-31-14
R	46	Air data computer - No.2	2F71	06-216	34-11-41
	47	Spare	-	06-216	-
R	48	Safety flight control computer - No.2	2C650	06-216	27-39-11
R	49	Artificial feel computer - No.2	2C235	06-216	27-32-44
R	50	Engine control amplifier - No.3 alternate	3K21	06-216	76-11-11
R	51	Engine control amplifier - No.4 main	4K20	06-216	76-11-11
R	52	Junction box	-	05-216	23/34
R	53	Interphone amplifier	R62	05-216	23-41-33
R	54	Selcal decoder	R111	05-216	23-22-33
R	55	Public address amplifier	R137	05-216	23-31-33
R	56	VOR-ILS & RAD-INS switching unit - No.2	2F24	05-216	34-23-13
R	57	VOR receiver - No.2	2R24	05-216	34-55-31
R	58	ILS receiver - No.2	2R37	05-216	34-36-31
R	59	VHF transceiver - No.2	2R14	05-216	23-21-33
R	60	Flat tyre Detection unit	G439	05-216	32-48-11
R	61	Autostabilization computer - No.2	2C31	08-216	22-22-11
R	62	PFCS shunt box	C110	08-216	27-36-17

	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
R	63	Flight control surface monitoring comparator - No.2	2C48	08-216	27-37-11
R	64	Static monitoring change-over unit	C56	08-216	27-37-12
R	65	Outer elevon neutralization computer - No.2	2C45	08-216	27-36-16
R	66	Engine control amplifier - No.4 alternate	4K21	08-216	76-11-11
R	67	Engine control amplifier - No.3 main	3K20	08-216	76-11-11
R	68	Master warning test connectors	W272-A W273-A W274-A W275-A	07-216	33-15-00
R	69	Master warning control unit	W253	07-216	33-15-11
R	70	Audio warning unit	W381	07-216	31-23-11
R	71	Door warning relay box	W320	07-216	52-71-00
R	72	Radio navigation FDSU - S.P. only	-	07-216	-
R	73	Radio navigation computer - S.P. only	-	07-216	-
	74	Spare	-	07-216	-
R	75	Track-heading unit - No.2	2F142	10-216	34-23-61
R	76	Ice detector relay unit	2H102	10-216	30-81-11
	77	Turbine blade temperature control unit - S.P. only	-	10-216	-
R	78	Air conditioning overheat safety box - No.4	4H649	10-216	21-12-71

	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
R	79	Air intake sensor unit - No.3	3K1801	10-216	76-61-11
R	80	Air intake sensor unit - No.4	4K1801	10-216	71-61-11
R	81	Fuel centre-of-gravity pack - standby 1	Q1344	10-216	28-44-81
R	82	Fuel level switching pack - LH	Q1350	10-216	28-42-51
R	83	Fuel quantity pack - channel A, LH	Q1341	10-216	28-44-92
R	84	Cabin pressure control amplifier - No. 2	H1156	10-216	21-35-43
R	85	Air conditioning smoke detector amplifier - No.3	3H698	10-216	21-17-21
R	86	Relay jack hydraulic supply selector unit	C298	10-216	27-34-72
	87	Turbine blade temperature control unit - S.P. only	-	10-216	-
R	88	Mass flow indication amplifier	D202	09-216	21-21-73
R	89	Air conditioning overheat safety box - No.3	3H649	09-216	21-12-71
R	90	Windshield and visor glazing temperature controller - No.2	2H149	09-216	30-41-11
R	91	Air intake test unit	K1753	09-216	71-61-18
R	92	Fuel quantity pack - channel B, RH	Q1342	09-216	28-44-92
R	93	Fuel centre-of-gravity pack - standby 2	Q1345	09-216	28-44-81
	94	Spare	-	09-216	-

KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF REF.	CHAP.
95	Forward racking service supply connector - 200/115V a.c.	M245	18-216	25-71-00
96	Forward racking service supply connector - 28V d.c.	M246	18-216	25-71-00

Equipment in RH Flight Compartment Racking (Ref. Fig.3)
Table 2

	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
RB	1	ADF receiver - No. 1	1R167	01-244	34-53-12
RB	2	ADF receiver - No. 2	2R167	01-244	34-53-12
RB RB	3	HF radio selector unit - No. 1	1R8	01-243	23-11-45
RB RB	4	HF radio selector unit - No. 2	2R8	01-243	23-11-45
	5	HF transceiver - No.2	2R1	02-244	23-11-33
	6	HF transceiver - No.1	1R1	02-243	23-11-33
	7	Spare	-	03-244	-
	8	Spare	-	03-244	-
	9	Spare	-	03-244	-
	10	Reheat control amplifier - No.1	1K1553	03-243	76-15-11
	11	Engs. 1 and 3 - signal conditioning unit	R282	03-243	31-31-23
	12	Spare	-	03-243	-
	13	Reheat control amplifier - No.3	3K1553	04-244	76-15-11

	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
R	14	Air intake control unit - No.5 - No.3 intake main	3K2001	04-244	71-61-21
R	15	Air intake control unit - No.8 - No.4 intake alternate	4K2002	04-244	71-61-21
R	16	Air intake control unit - No.2 - No.1 intake alternate	1K2002	04-243	71-61-21
R	17	Air intake control unit - No.3 - No.2 intake main	2K2001	04-243	71-61-21
R	18	Reheat control amplifier - No.2	2K1553	04-243	76-15-11
R	19	Engs 3 and 4 - signal conditioning unit	R283	05-244	31-31-23
R	20	Air intake control unit - No.7 - No.4 intake main	4K2001	05-244	71-61-21
R	21	Air intake control unit - No.6 - No.3 intake alternate	3K2002	05-244	71-61-21
R	22	Air intake control unit - No.4 - No.2 intake alternate	2K2002	05-243	71-61-21
R	23	Air intake control unit - No.1 - No.1 intake main	1K2001	05-243	71-61-21
R	24	Emergency generator - control and protection unit (CPU)	X201	05-243	24-22-21
R	25	Reheat control amplifier - No.4	4K1553	06-244	76-15-11
R	26	Cockpit voice recorder	R186	06-244	23-71-52
R	27	Protected recorder (DFDR)	R255	06-243	31-31-22

	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
R	28	Rear racking service supply connector - 115V a.c.	M244	07-243	25-71-00

Equipment in Rear Vestibule Racking (Ref.Fig.4)
Table 3

	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
		Underfloor rack			
R	1	Transformer rectifier unit-No.3	3P4	04-123	24-31-12
R	2	Transformer rectifier unit-No.2	2P4	04-123	24-31-12
R	3	Transformer rectifier unit - No.1	1P4	04-123	24-31-12
R	4	Transformer rectifier unit - No.4	4P4	04-123	24-31-12
R	5	Flasher unit (Anti-collision)	L10	05-123	33-42-13
R	6	Ice detector control relay - LH	1H 103	13-123	30-00-00
R	7	Air relay box - LH	See Ref	14-123	21-21-00
R	8	Fuel relay box - RH	See Ref	18-123	28-00-00
R	9	Engine relay box - RH	See Refs	20-123	*76-00-00 91-12-40
R	10	Air relay box - RH	See Refs	17-123	21-21-00 24-41-00
R	11	Ice detector control relay - RH	2H 103	16-123	30-00-00

NOTE: * indicates Wiring Diagram Manual reference (See NOTE at end of Table 4).

	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
R	12	Miscellaneous relay box - RH	See Ref.	08-123	*91-12-28
R	13	Hydraulic relay box - RH	See Ref.	03-123	29-00-00
R	14	Miscellaneous relay box	See Ref.	11-123	*91-12-31
R	15	Ground power panel	31X X372	10-123	24-41-00 24-41-12
R	16	Hydraulic relay box - LH	See Ref.	02-123	29-00-00
R	17	Miscellaneous relay box - LH	See Ref.	07-123	*91-12-27
R	18	Engine relay box - LH	See Refs.	19-123	*76-00-00 91-12-39
R	19	Fuel relay box - LH	See Ref.	15-123	28-00-00
R	20	Air/ice contactor box - LH	See Ref.	21-123	30-00-00
R	21	Fuel contactor box - LH	See Ref.	22-123	28-00-00
R	22	Air/ice contactor box - RH	See Ref.	23-123	30-00-00
R	23	Fuel contactor box - RH	See Ref.	24-123	28-00-00
R	38	Fuel trim pump start control unit	1Q1424	12-123	28-23-72
R	39	Fuel trim pump start control unit	1Q1425	12-123	28-23-72
R	40	Fuel trim pump start control unit	2Q1424	12-123	28-23-72
R	41	Fuel trim pump start control unit	2Q1425	12-123	28-23-72

NOTE: * indicates Wiring Diagram Manual reference (See NOTE at end of Table 4).

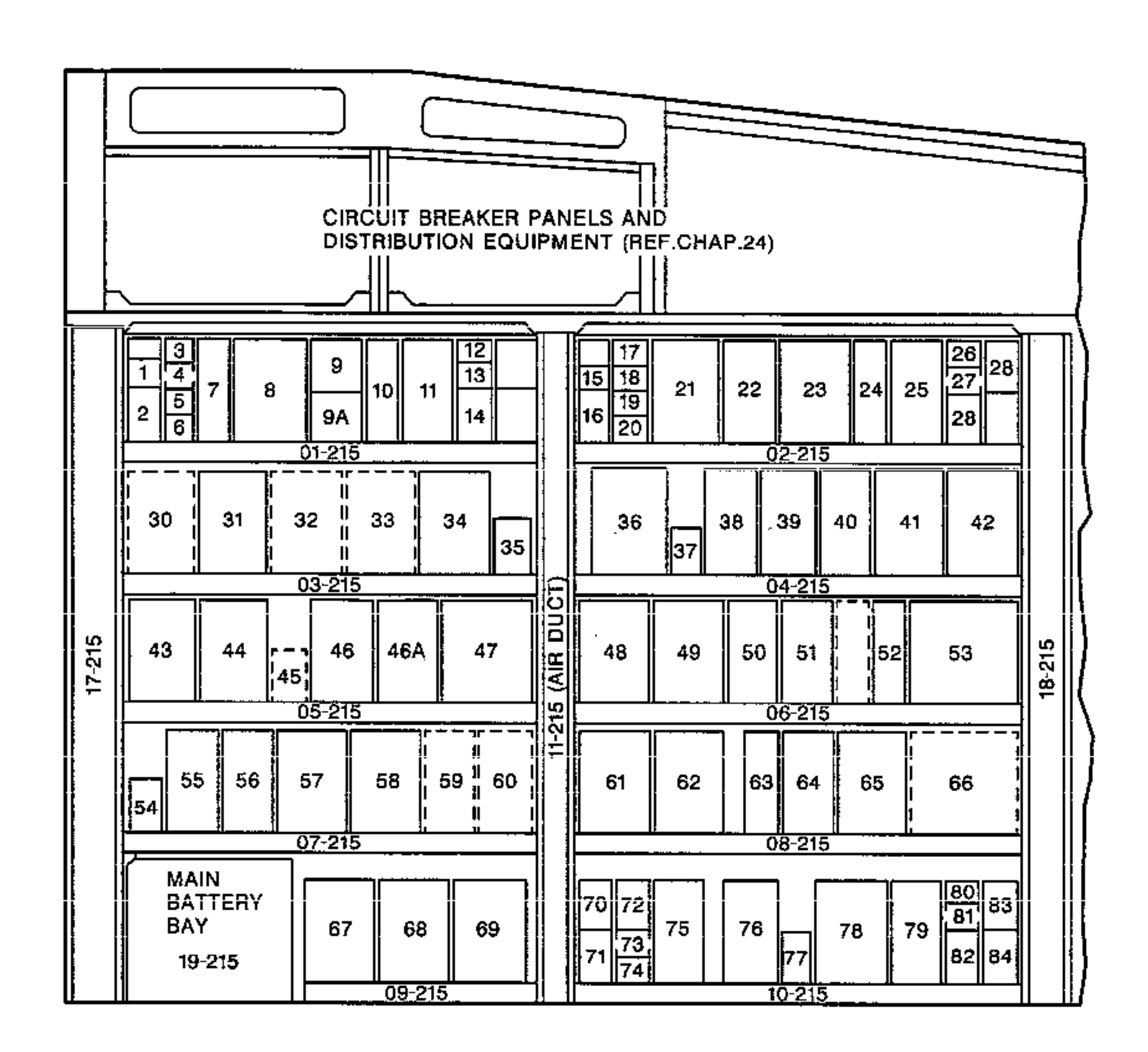
	KEY NO.	EQUIPMENT	EQUIP. IDENT.	SHELF	CHAP. REF.
		INS equipment crate			
R	24	Compass coupler - No.2	2F126	26-123	34-21-35
R	25	NAV INS 2/1 switching unit	2F9	26-123	34-45-35
R	26	INS battery unit - No.2	2F10	26-123	34-45-38
R	27	INS battery unit - No.3	3F10	26-123	34-45-38
R	28	INS battery unit - No.1	1F10	26-123	34-45-38
R	29	Inertial signals comparator unit	F1	26-123	34-46-00
R	30	NAV INS 1/2 switching unit	1F9	26-123	34-45-35
R	31	Compass coupler - No.1	1F126	26-123	34-21-35
R	32	Compass coupler switching unit	F135	26-123	34-21-31
R	33	INS unit - No.2	2F8	27-123	34-45-34
R	34	INS unit - No.3	3F8	27-123	34-45-34
R	35	INS unit - No.1	1F8	27-123	34-45-34
		Weather radar crate			
R	36	Weather radar transceiver - No.1	1S23	29-123	34-41-33
R	37	Weather radar transceiver - No.2	2S23	29-123	34-41-33

NOTE: Relay Boxes, while of similar outline to other ATR racked cases, are wired through circular connectors enabling unsupported withdrawal from the racking, without disconnection, for access to internal components. Where individual components are disturbed, only the aircraft system thus affected need be checked, by reference to the appropriate chapter. Where several components are disturbed, or the Relay Box is disconnected, then reference should be made to the quoted Wiring Diagram Manual (WDM) chapter for guidance to the aircraft systems then disturbed and to be checked.

Equipment in Underfloor Equipment Bay Racking (Ref.Fig.5)
Table 4

PRINTED IN ENGLAND

THIS PAGE LEFT INTENTIONALLY BLANK



FOR KEY TO EQUIPMENT NUMBERS, REFER TO TABLE 1

CMB 25 71 00 0 ACM0 00

R

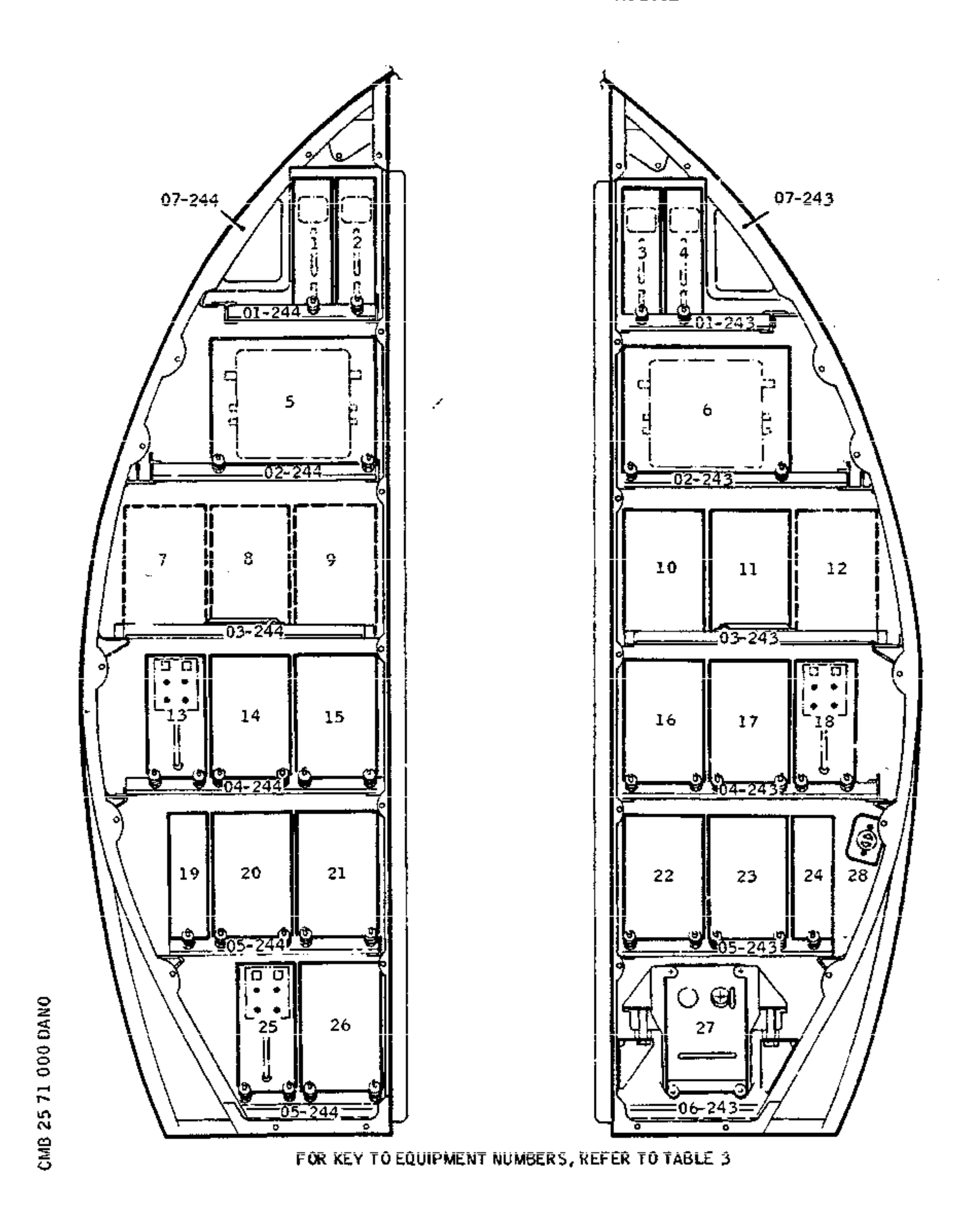
LH Flight Compartment Racking
Figure 002

CB13094/00B

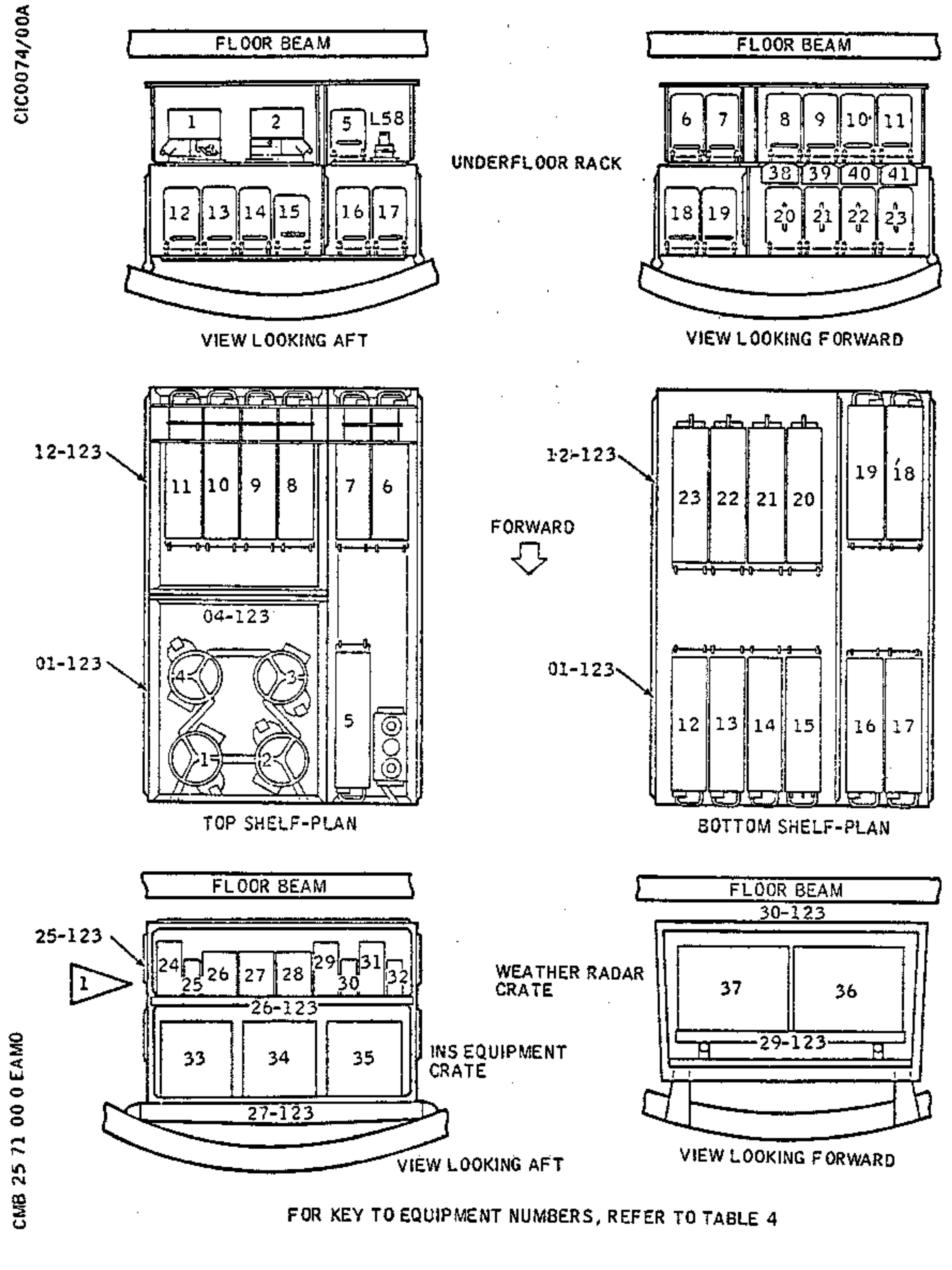
FOR KEY TO EQUIPMENT NUMBERS, REFER TO TABLE 2

CMB 25 71 00 0 CANO

RH Flight Compartment Racking
Figure 003



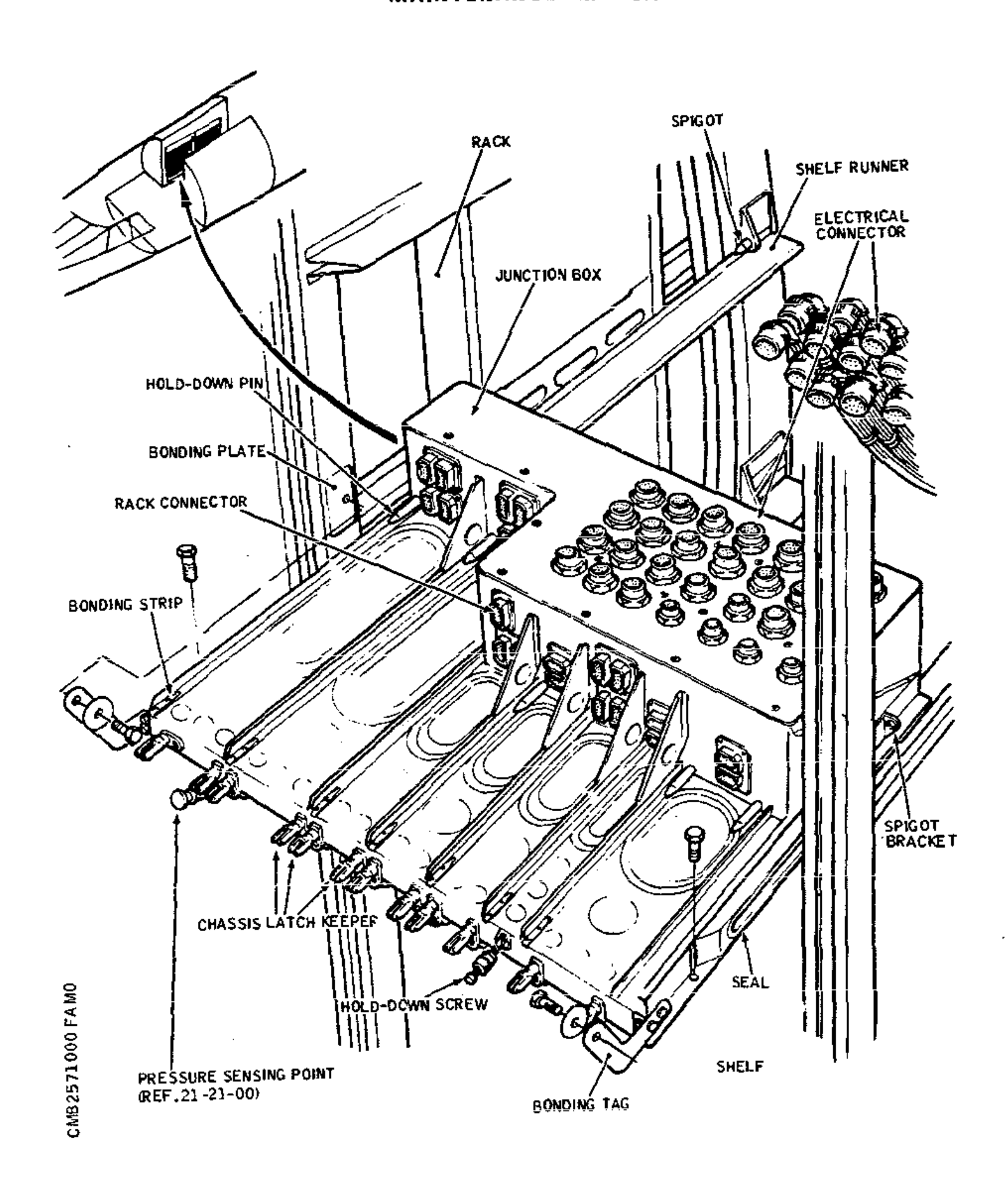
Rear Vestibule Racking
Figure 004



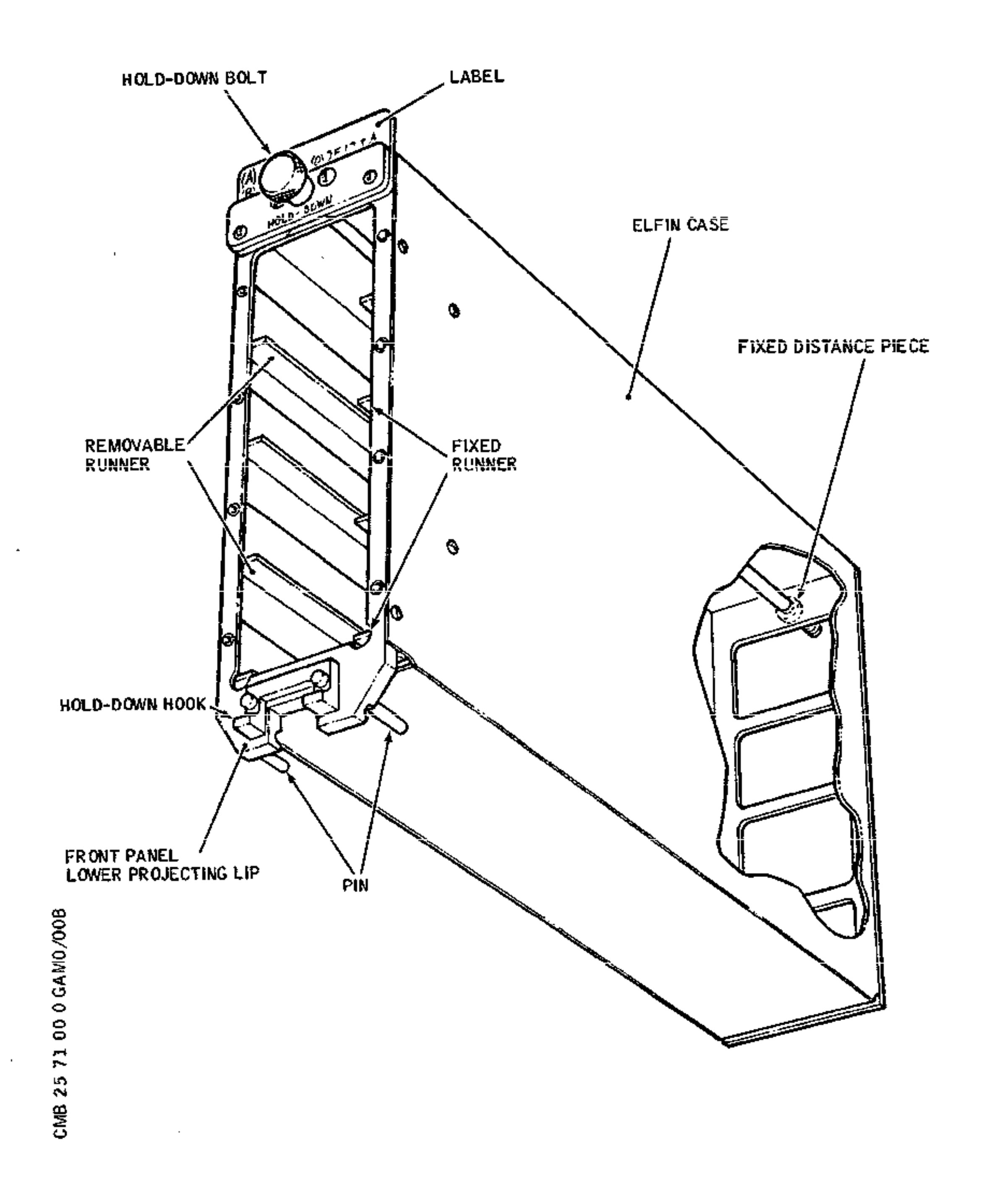
FOR KEY TO EQUIPMENT NUMBERS, REFER TO TABLE 4

1 BA MOD CM42611 REMOVED No.1 & 2 INS BATTERIES (ITEMS 26 & 28)

R Underfloor Equipment Bay Racking
Figure 005



Junction Box Shelf - Typical
Figure 006



Elfin Case
Figure 007

ELECTRICAL/ELECTRONIC EQUIPMENT RACKING - REMOVAL/INSTALLATION

WARNING: OBSERVE THE ELECTRICAL SAFETY PRECAUTIONS DETAILED IN 24-00-00.

1. General

This topic details the removal and installation procedures for:

(1) The flight compartment racking sealing panels.

(2) An Elfin case.

(3) A flight compartment racking junction box shelf.

(4) The rear vestibule racking decor and forward bulkheads.

(5) A rear vestibule racking junction box (interface unit) shelf.

(6) The Inertial Navigation System (INS) equipment crate junction box shelf.

(7) The relay and contactor box bonding strips on the underfloor rack 123.

The identifications of shelves incorporating junction boxes or interface assemblies are shown in Table 401.

EQUIPMENT RACKING	SHELF IDENTIFICATION
Flight compartment - LH	3-215, 4-215, 5-215, 6-215, 7-215, 8-215
Flight compartment - RH	3-216, 4-216, 5-216, 6-216, 7-216, 8-216
Rear vestibule - LH	4-243, 5-243
Rear vestibule - RH	4-244, 5-244
INS equipment crate	26-123
Underfloor rack	02-123, 03-123, 05-123, 07-123, 08-123, 10-123, 11-123 and 13-123 to 24-123 inclusive.

R

R EQUIPMENT RACKING SHELF IDENTIFICATION
R

R

Shelves Incorporating Junction Boxes, Interface Units,
Relay Boxes or Contactor Boxes
Table 401

2. Flight Compartment Racking Sealing Panels (Ref. Fig. 401)

NOTE: The LH and RH racks each have six sealing panels. Vertically adjacent panels are joined with channels and quick-release fasteners.

A. Remove Sealing Panel

(1) Release the quick-release fasteners at the periphery of the appropriate panel, then remove the panel.

B. Install Sealing Panel

(1) Ensure that the seals on the back of the panel and the contact faces on the rack are clean and undamaged.

(2) Ensure that the windows and grilles in the panel are clean and undamaged.

(3) Position the panel on the rack, then secure the quick-release fasteners.

3. Elfin Case (Ref. Fig. 402)

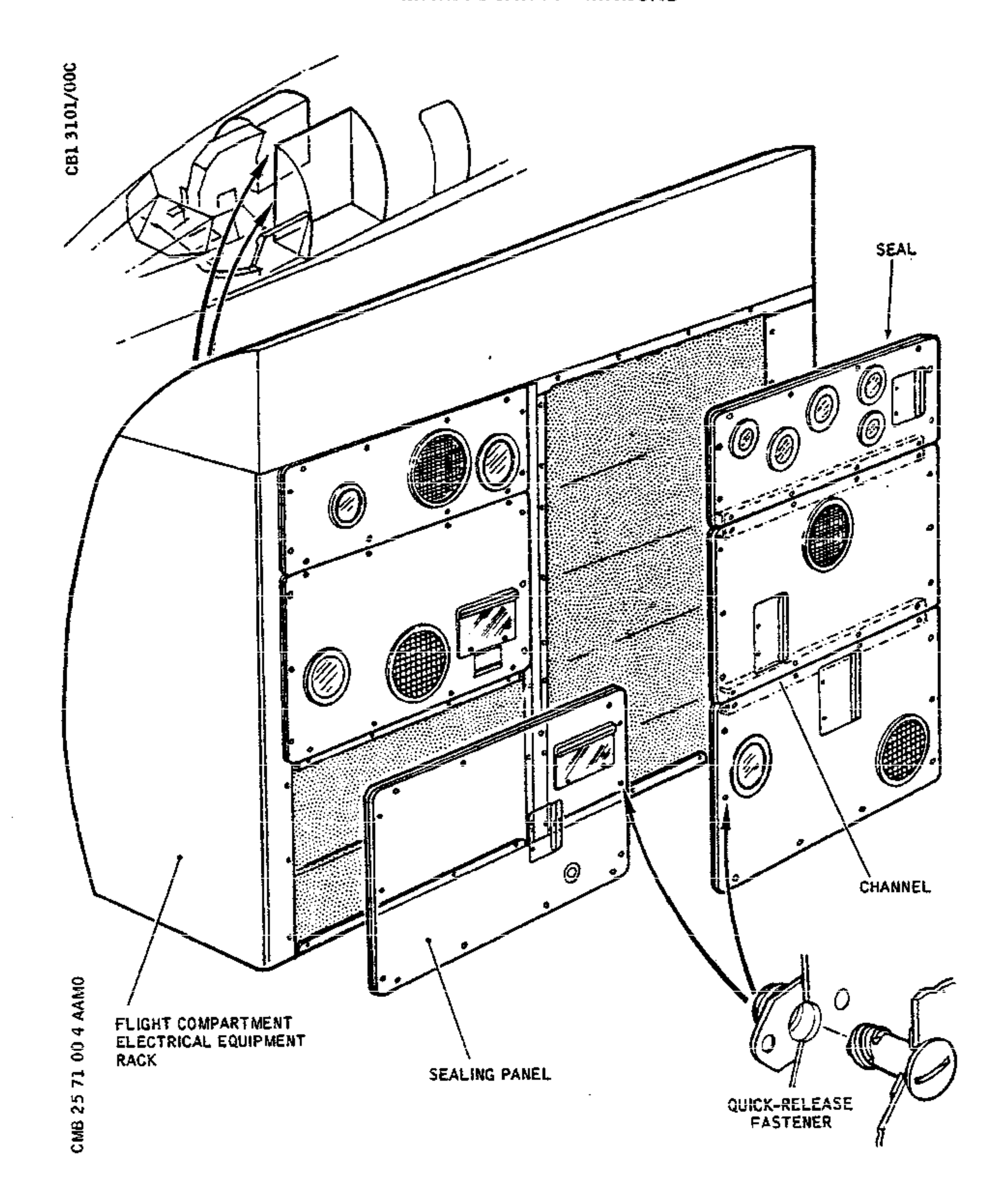
NOTE: For normal maintenance purposes Elfin cases are regarded as part of the shelf to which they are fitted and should only be removed if removal of the case is necessary or if the shelf is to be removed.

A. Prepare to Remove Elfin Case

(1) Remove the appropriate sealing panel (Ref. para.2.).

(2) Remove the modules from the Elfin case as detailed in the appropriate system chapters.

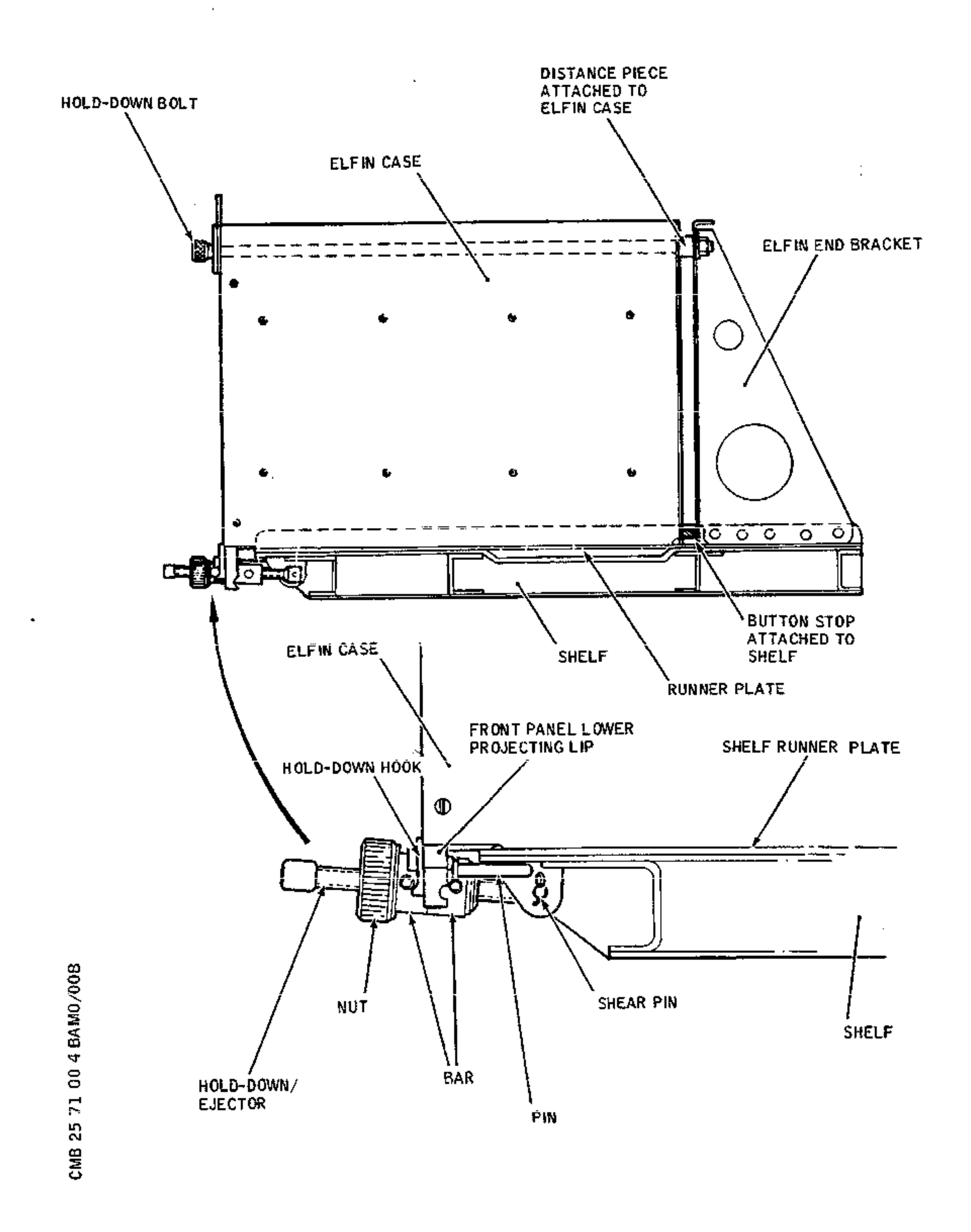
B. Remove Elfin Case



- Flight Compartment Racking Sealing Panels -
Installation
Figure 401

R

Printed in England



Elfin Case - Installation
Figure 402

(1) Unscrew the hold-down bolt at the top of the case front panel.

(2) Unscrew the nut of the hold-down/ejector on the shelf, disengaging the bar from the hold-down hook.

(3) Engage the bar in the front panel lower projecting lip, then continue to unscrew the hold-down/ejector nut.

(4) Withdraw the case horizontally until the pins on the front panel lower projecting lip are clear of the shelf, then remove the case.

C. Install Elfin Case

(1) Comply with the electrical safety precautions.

(2) Ensure that the bonding clips on the shelf are clean and that the contact areas on the base of the Elfin case are clean and free from paint.

(3) Position the case on the shelf with the pins on the front panel lower protruding lip clear of the shelf.

(4) Slide the case back onto the shelf, ensuring that the pins go under the shelf runner plate, until the distance piece on the rear of the case abuts the Elfin end bracket and the case abuts the button stop on the Elfin end bracket.

(5) Screw in and tighten the hold-down bolt.

(6) Engage the bar of the hold-down ejector in the hold-down hook, then tighten the nut of the hold-down ejector.

D. Conclusion

(1) Check that the clearance between the rear of the Elfin case and the Elfin end bracket is between 0.197 and 0.203 in (5.00 and 5.15 mm).

R (2) Fit the Elfin module to the Elfin case as detailed in
R 20-27-11.

R (3) Check that the bonding between the module and the shelf is in accordance with 20-27-11.

(4) Fit the rack sealing panel (Ref. para.2.).

R (5) Carry out the appropriate functional test on the
R equipment disturbed (Ref. Adjustment/Test).

R NOTE: This test must cover all of the equipment
R disturbed.

4. Flight Compartment Racking Junction Box Shelf (Ref. Fig. 403)

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque spanner, 30 to 40 lbf in (0.34 to 0.45 mdaN)	-
Heavy current source (50 A)	-

B. Prepare to Remove Shelf

(1) Remove the appropriate sealing panels (Ref. para.2.).

(2) Remove the racked equipment from the shelf as detailed in the appropriate system chapters.

C. Remove Shelf

(1) Disconnect the aircraft electrical connectors from the junction box.

(2) Remove the bolts and washers attaching the bonding tags to the bonding plates on the rack at each side of the shelf.

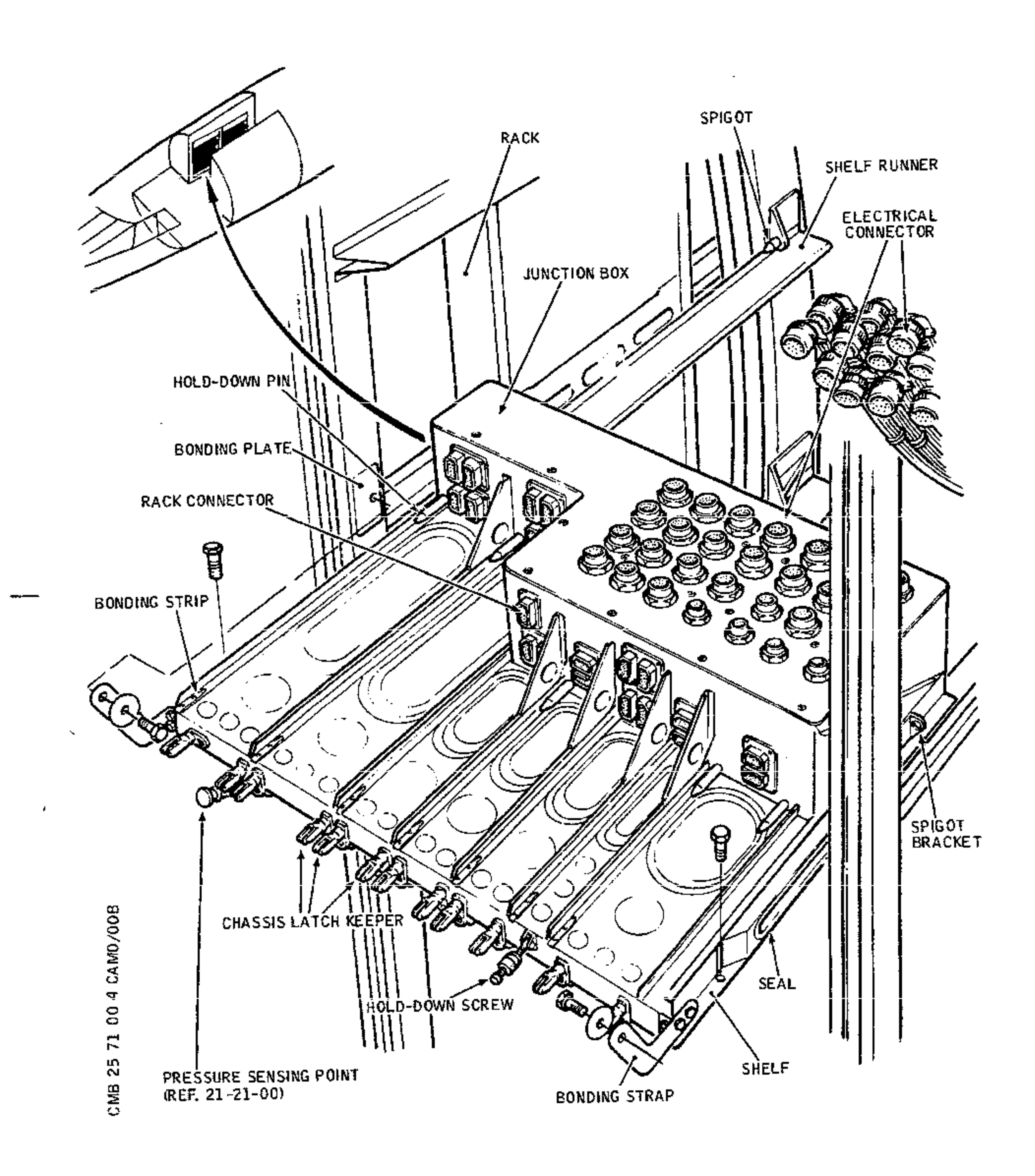
(3) Remove the bolts attaching the shelf to the shelf runners.

(4) Withdraw the shelf horizontally until the spigot brackets at the rear of the shelf are clear of the spigots, then remove the shelf.

D. Install Shelf

(1) Observe the electrical safety precautions.

(2) Ensure that the seals on the sides of the shelf are



- Flight Compartment Racking Junction Box Shelf -
Installation
Figure 403

clean and undamaged.

(3) Position the shelf on the shelf runners, inboard of its installed position, then slide the shelf into the rack, engaging the spigot brackets and spigots.

(4) Secure the shelf to the runners with the bolts at the two inboard attachment points. Torque-tighten the bolts to between 30 and 40 lbf in (0.34 and 0.45 mdaN).

(5) Secure the bonding tags to the racking bonding plates with the bolts and washers in accordance with 20-27-11. Torque-tighten the bolts to between 30 and 40 lbf in (0.34 and 0.45 mdaN).

(6) Connect the aircraft electrical connectors to the junction box, ensuring that the mating surfaces are clean and undamaged.

E. Conclusion

(1) Measure the voltage drop between any point on the shelf and the face of the racking, using a test current of 50 A. The voltage drop must not exceed 20 mV.

(2) Ensure that the bonding strips are clean, then install the racked equipment as detailed in the appropriate system chapters.

(3) Fit the sealing panels (Ref. para.2.).

R (4) Carry out the appropriate functional test on the
R equipment disturbed (Ref. Adjustment/Test).

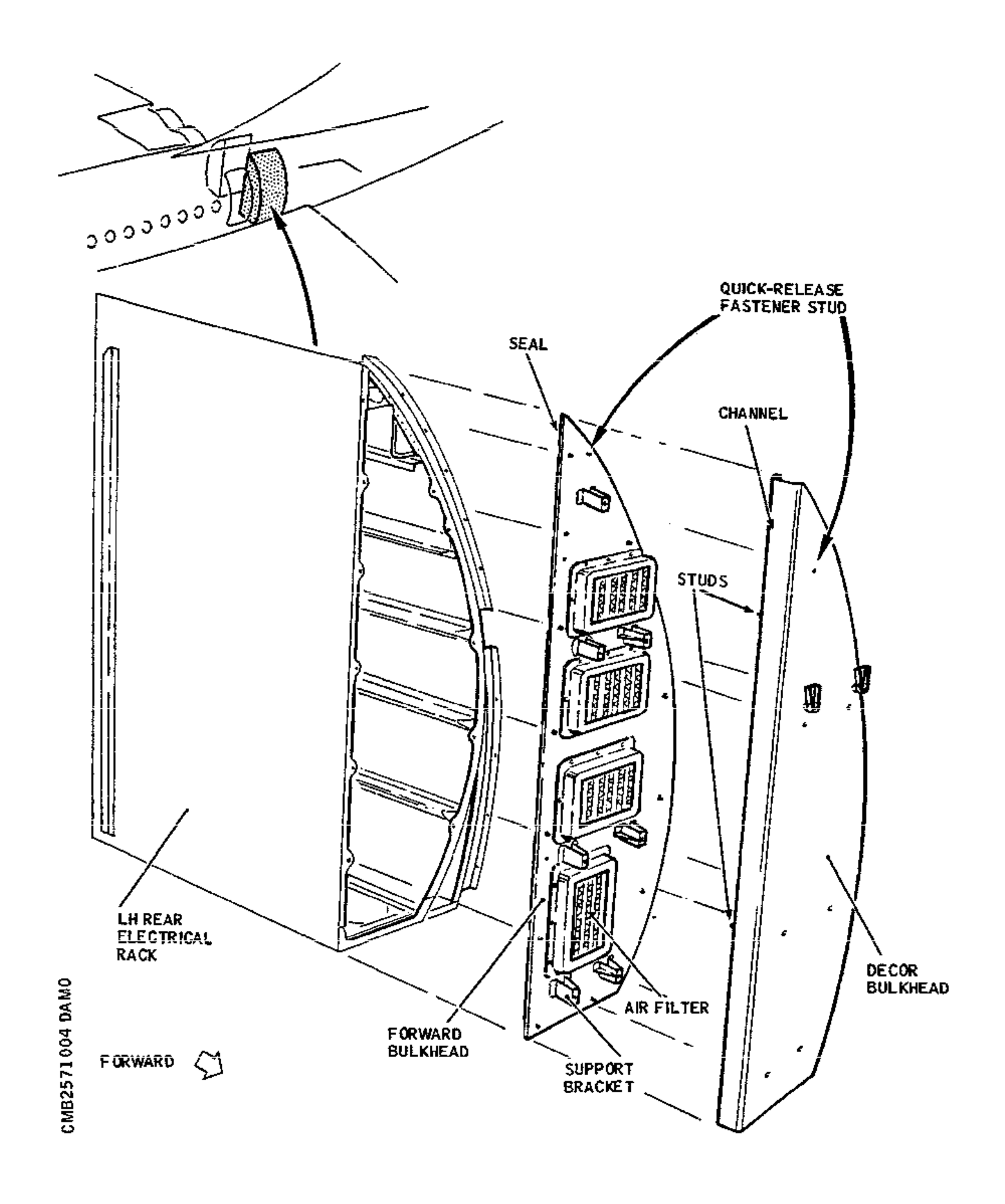
R <u>NOTE</u>: This test must cover all of the equipment
R disturbed, and is to be the functional test
R detailed in the appropriate system chapter
R or chapters.

5. <u>Rear Vestibule Racking Decor and Forward Bulkheads (Ref. Fig. 404)</u>

A. Remove Bulkheads

(1) Detach the decor bulkhead from the forward bulkhead by releasing the quick-release fasteners.

(2) Withdraw the decor bulkhead forward to release the studs on the channel from the holes in the



- Rear Vestibule Racking Decor and Forward Bulkheads -
Installation
Figure 404

forward bulkhead, then remove the decor bulkhead.

(3) Detach the forward bulkhead from the rack by releasing the quick-release fasteners, withdraw the bulkhead, taking care not to damage the seals, then remove the bulkhead.

B. Install Bulkheads

(1) Ensure that the seals on the back of the forward bulkhead and the contact face on the face of the rack are clean and undamaged.

(2) Ensure that the filters on the bulkhead (Ref. Chap.21) are clean and undamaged.

(3) Position the forward bulkhead support brackets, then secure the quick-release fasteners.

(4) Position the decor bulkhead on the forward bulkhead, engaging the studs on the channel in the holes in the forward bulkhead, then secure the quick-release fasteners.

6. Rear Vestibule Racking Junction Box Shelf (Ref. Fig. 405)

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque spanner, 30 to 40 lbf in (0.34 to 0.45 mdaN)	-
Heavy current source (50 A)	-

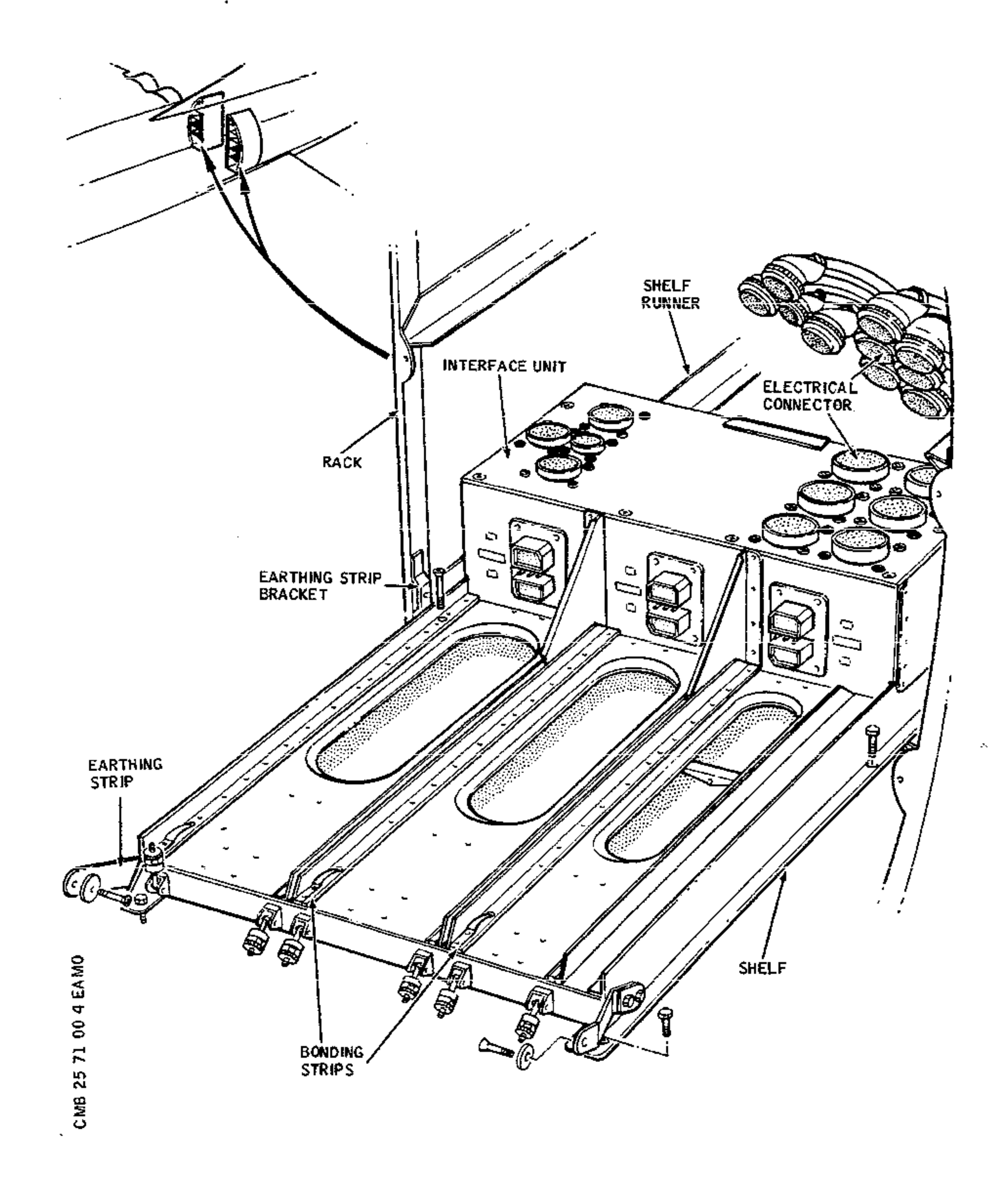
B. Prepare to Remove Shelf

(1) Remove the decor and forward bulkheads from the racking (Ref. para.5.).

(2) Remove the racked equipment from the shelf as detailed in the appropriate system chapters.

C. Remove Shelf

(1) Disconnect the aircraft electrical connectors from the interface unit.



- Typical Rear Vestibule Racking Junction Box Shelf - Installation
Figure 405

(2) Remove the screw (inboard), bolt (outboard), and washers attaching the earthing strips to the earthing brackets.

(3) Remove the bolts attaching the shelf to the shelf runners, then remove the shelf.

D. Install Shelf

(1) Comply with the electrical safety precautions.

(2) Position the shelf on the shelf runners with the rear of the shelf against the stop of the outboard runner, then secure the shelf to the runners with the bolts. Torque-tighten the bolts to between 30 and 40 lbf in (0.34 and 0.45 mdaN).

(3) Secure the shelf earthing strips to the earthing bracket with the screw (inboard), bolt (outboard), and washers in accordance with 20-27-11. Torque-tighten the screw and the bolt to between 30 and 40 lbf in (0.34 and 0.45 mdaN).

(4) Connect the aircraft electrical connectors to the interface unit, ensuring that the mating surfaces are clean and undamaged.

E. Conclusion

(1) Measure the voltage drop between any point on the shelf and the face of the rack, using a test current of 50 A. The voltage drop must not exceed 20 mV.

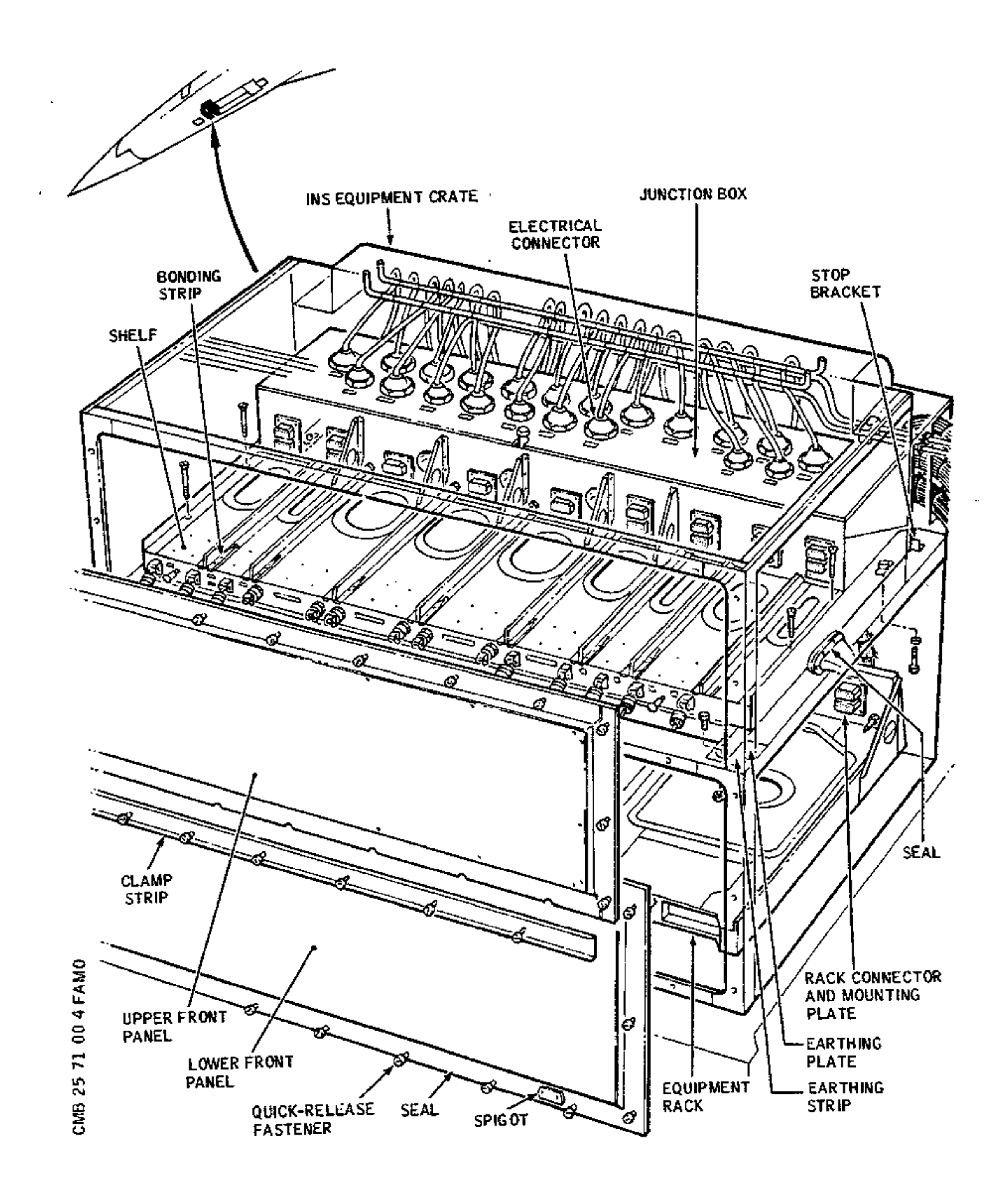
(2) Ensure that the bonding strips are clean, then install the racked equipment as detailed in the appropriate system chapters.

(3) Fit the forward and decor bulkheads to the racking (Ref. para.5.).

R (4) Carry out the appropriate functional test on the
R equipment disturbed (Ref. Adjustment/Test).

R <u>NOTE:</u> This test must cover all of the equipment
R disturbed, and is to be the functional
R test detailed in the appropriate system
R chapter or chapters.

7. <u>INS Equipment Crate Junction Box Shelf</u> (Ref. Fig. 406)



- INS Equipment Crate Junction Box Shelf - Installation
Figure 406

A. Equipment and Materials

DESCRIPTION	PART NO.
Torque spanner, 30 to 40 lbf in (0.34 to 0.45 mdaN)	-
Heavy current source (50 A)	-

B. Prepare to Remove Shelf

(1) Gain access to the crate by removing access panel 123 BB in the fuselage lower surface.

(2) Detach the clamp strip and the upper and lower front panels from the crate by releasing the quick-release fasteners.

(3) Remove all racked equipment from the crate as detailed in 34-45-00.

C. Remove Shelf

(1) Disconnect the aircraft electrical connectors from the junction box.

(2) Detach the earthing strip from the crate by removing the nut and bolt.

(3) Remove the bolts attaching the shelf to the crate.

(4) Detach the rack connectors and mounting plates from the equipment mounting racks in the lower compartment by releasing the screws.

(5) Remove the shelf from the crate.

D. Install Shelf

(1) Comply with the electrical safety precautions.

(2) Position the shelf in the crate upper compartment with the rear of the crate abutting the stop bracket.

(3) Fit the rack connectors and mounting plates to the equipment mounting racks in the lower compartment

and secure them with the screws.

(4) Secure the shelf to the crate with the bolts, fitting the two rear bolts head down. Torque-tighten the bolts to between 30 and 40 lbf in (0.34 and 0.45 mdaN).

(5) Attach the earthing strips to the crate with the nuts and bolts in accordance with 20-27-11. Torque-tighten the nuts to between 30 and 40 lbf in (0.34 and 0.45 mdaN).

(6) Connect the aircraft electrical connectors to the junction box, ensuring that the mating surfaces are clean and undamaged.

E. Conclusion

(1) Measure the voltage drop between any point on the shelf and the crate structure, using a test current of 50 A. The voltage drop must not exceed 20 mV.

(2) Ensure that the seals on the front panels and the mating faces on the crate are clean and undamaged, then fit the upper and lower front panels, engaging the locating spigots on the panels in the holes in the crate. Secure the panels with the quick-release fasteners.

(3) Fit the clamping strip and secure it with the quick-release fasteners.

(4) Fit and secure the access panel, 123 BB (Ref. Chap.52).

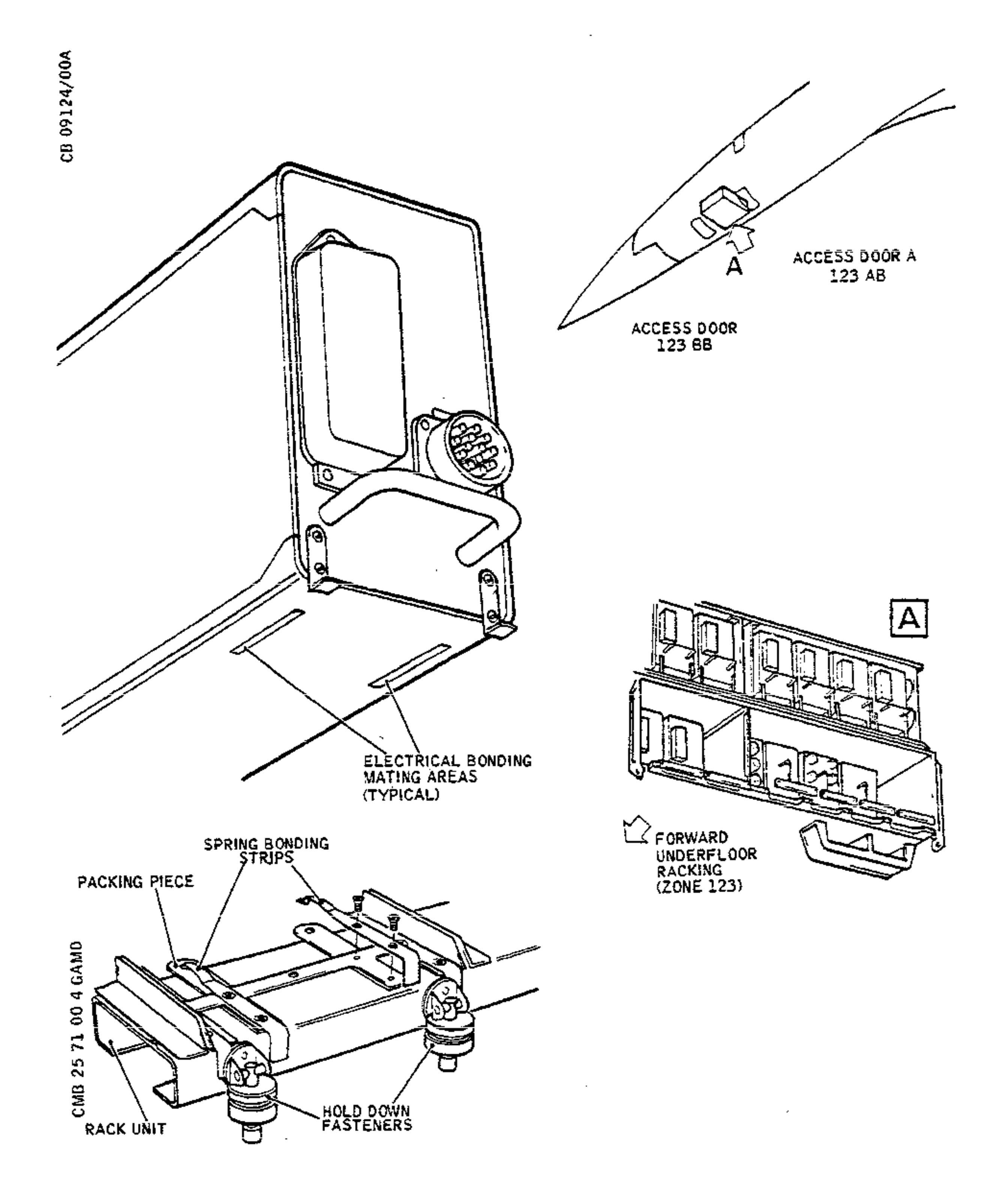
(5) Carry out the appropriate functional test on the equipment disturbed (Ref. Adjustment/Test).

NOTE: This test must cover all of the equipment disturbed, and is to be the functional test described in the appropriate system chapter or chapters.

After SB 20-004/01 For A/C 001-007,

8. Bonding Strips on Underfloor Rack (Zone 123) (Ref. Fig. 407)

NOTE: The underfloor rack contains nineteen relay and contactor boxes. The boxes are arranged in two tiers comprising one, two and four unit racks.



Bonding Strip on Underfloor Rack
Installation
Figure 407

As the spring bonding strips on each unit are identical, the removal and installation of one bonding strip only is described.
Reference to the chapter concerning a particular relay or contact box can be found in 25-71-00, Description and Operation, Table 4.

A. Prepare

(1) Gain access to the relay and contactor boxes underfloor racks (Zone 123), by opening access doors 123AB and 123BB in the fuselage lower surface.

(2) On the appropriate box, release the hold-down fasteners from the box hold-down hooks.

(3) Withdraw the box from the rack sufficiently to gain access to the quick-release cable clamp(s) on the top of the box.

(4) Withdraw the box clear of the rack and disconnect the cable connectors at the rear of the box. Store the box in a place of safety.

B. Remove Spring Bonding Strip (Ref. Fig. 407)

(1) Remove the two screws securing the spring bonding strip to the packing piece. Discard the bonding strip and retain the screws.

C. Install Spring Bonding Strip.

(1) Thoroughly clean the mating surfaces of the bonding strip and the packing piece (Ref.20-27-11), to ensure a good electrical bond.

(2) Fit the bonding strip with the narrow joggled end inserted into the retaining hole in the packing piece.

(3) Secure the bonding strip with the two screws previously removed.

D. Conclusion

(1) Connect the cable connectors to the rear of the box.

(2) Thoroughly clean the spring bonding strip and the mating surface on the underside of the box

(Ref.20-27-11).

(3) Remount the box on the unit rack and secure the cables to the box with the quick-release cable clamp(s).

(4) Slide the box into the rack and secure it with the hold-down fasteners.

(5) Check that the box is electrically bonded in accordance with 20-27-11.

(6) Ensure the area is clean and free from obstruction and close and secure the access doors 123AB and 123BB.

(7) Carry out the appropriate functional test on the equipment disturbed (Ref. Adjustment/Test).

NOTE: This test must cover all of the equipment disturbed, and is to be the functional test detailed in the appropriate system chapter or chapters.

R 9. Chassis Latch Keeper - Electrical Racking (Ref.Fig.408)

R A. Prepare to Remove Chassis Latch Keeper

R (1) Remove appropriate sealing panel (Ref.para.2).

R (2) Pull down equipment handle to release the hold-down hook and slide out racked equipment.

R B. Remove Chassis Latch Keeper

R (1) Unscrew and remove keeper from electrical shelf.

R C. Install Chassis Latch Keeper

R (1) Screw keeper into electrical shelf and tighten.

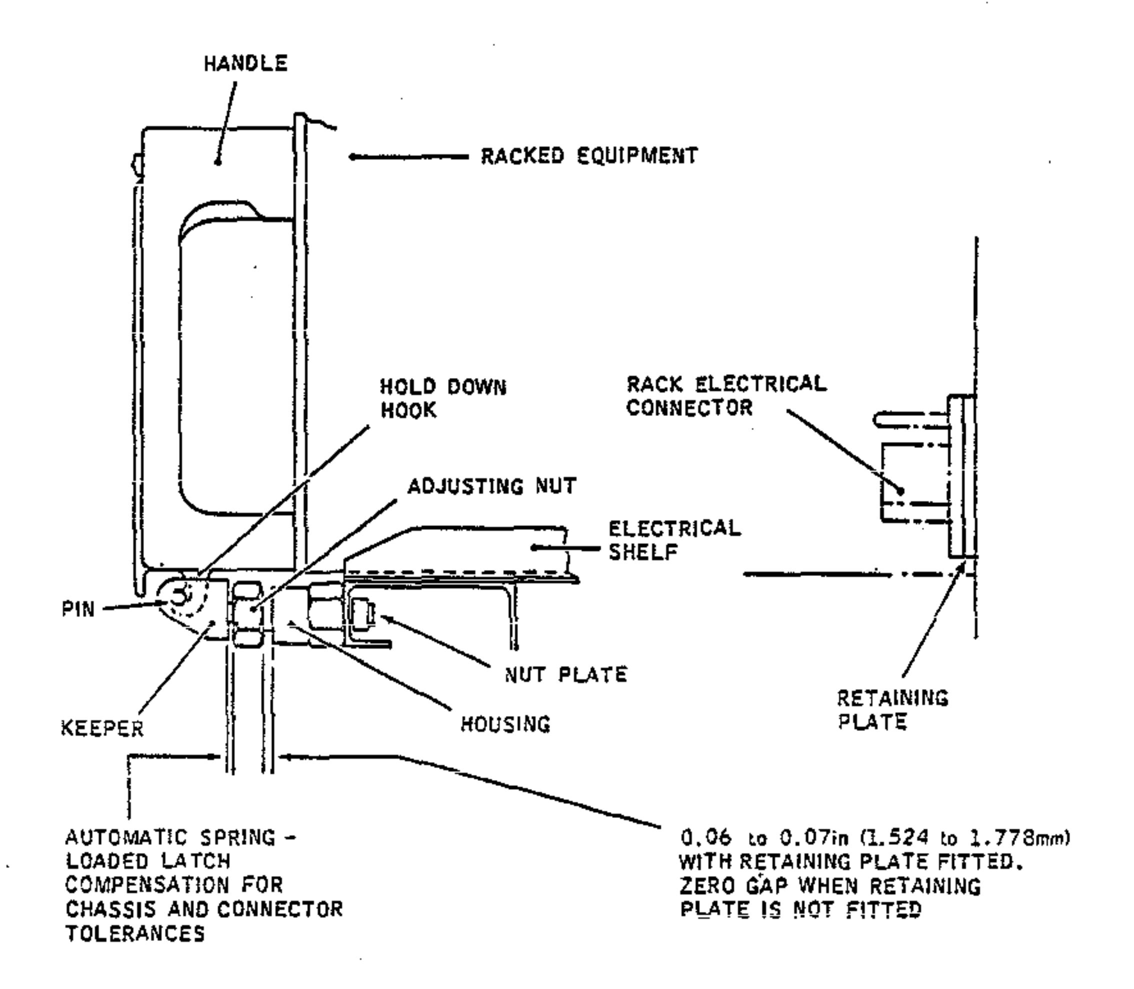
R NOTE: Establish whether a retaining plate is fitted and set up latch keeper accordingly.

R D. Install Racked Equipment

R (1) Check that the racking is clean and the electrical connector undamaged. Engage racked equipment with electrical racking and slide equipment in.

R (2) Pull handle up to engage the hold down hook with the pin.

CB09565/00A



NOTE: WHEN FITTING ELECTRICAL RACKED EQUIPMENT WITH MULTI PIN CONNECTORS, APPLY HAND PRESSURE TO ENSURE MAXIMUM PIN ENGAGEMENT.

CMB 25 71 00 4 HAMO

Chassis Latch Keeper - Installation
Figure 408

R E. Conclusion

R (1) Make sure that the shelf is clean and free from unwanted objects.

R (2) Carry out appropriate tests on equipment ensuring correct function.

R (3) Replace sealing panel (Ref.para.2).

UNDERFLOOR COMPARTMENT (ABOVE FUEL TANKS AND MAIN LANDING GEAR BAY) - DESCRIPTION AND OPERATION

1. General(Ref. Fig. 001)

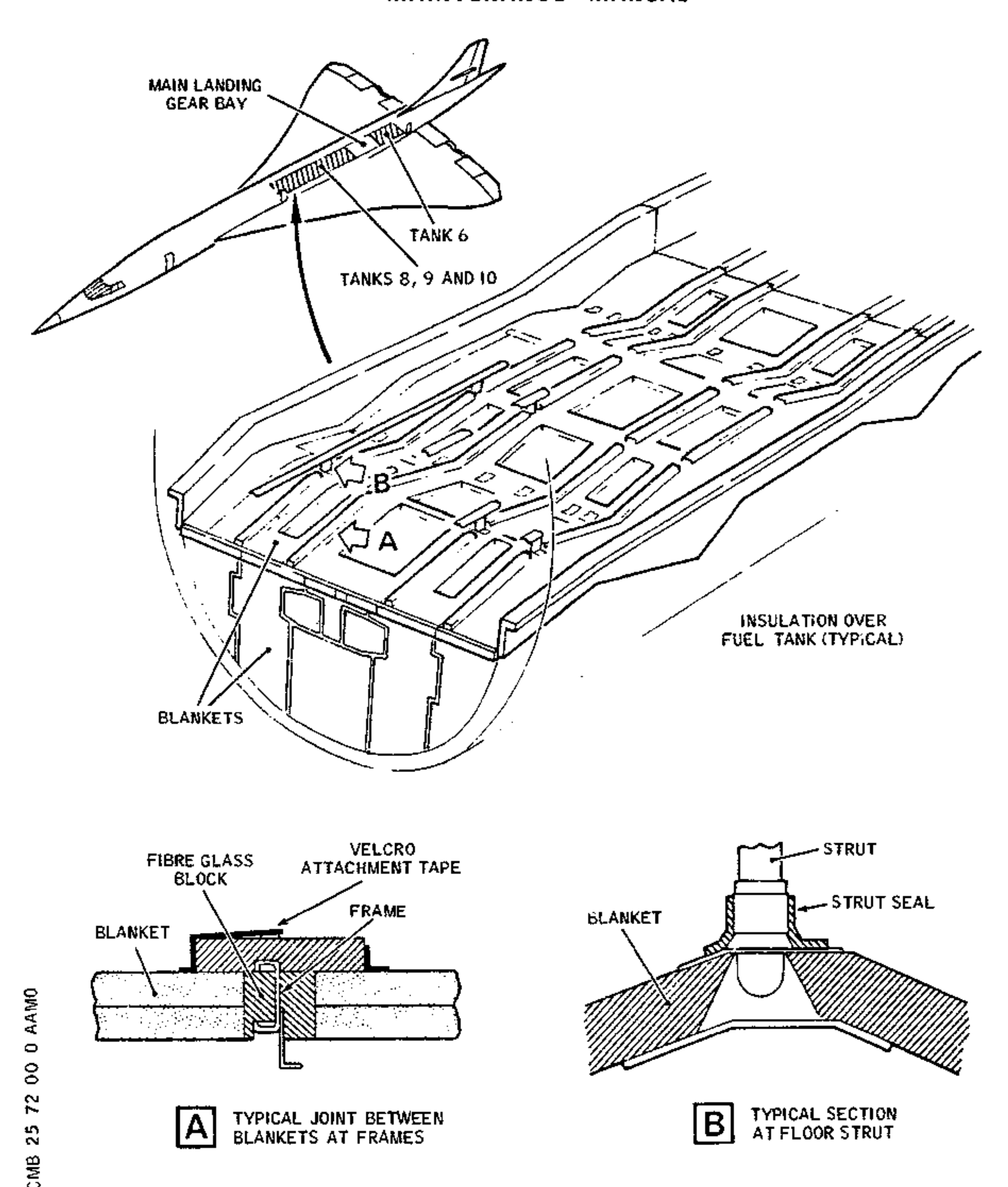
   Insulation, to provide a thermal and acoustic seal, is fitted beneath the cabin floor over the main landing gear bay and fuel tanks 6, 8, 9 and 10 located between the forward baggage compartment and the rear equipment bay.

2. Insulation

   The insulation material consists of glass fibre packs made up into blankets of the requisite shape and thickness and covered with fire resistant sheets of Nomex paper and rubberized fabric. The edges of the covering material are joined either by heat sealing or adhesive. Velcro tape is used to secure the blankets together, to the above-floor sidewall insulation, and other points of attachment.

   If blankets are maltreated, folded or crushed to 75 per cent of their nominal thickness their insulating property will be greatly reduced. They can be repaired in-situ.

Printed in England



Underfloor Compartment - Insulation
Figure 001

FORWARD UNDERFLOOR EQUIPMENT COMPARTMENT
DESCRIPTION AND OPERATION

1. General

Thermal insulation is fitted to the interior of the forward equipment compartment between the front pressure bulkhead and the nosewheel bay to provide a thermal and accoustic barrier.

2. Insulation (Ref. Fig.001 and 002)

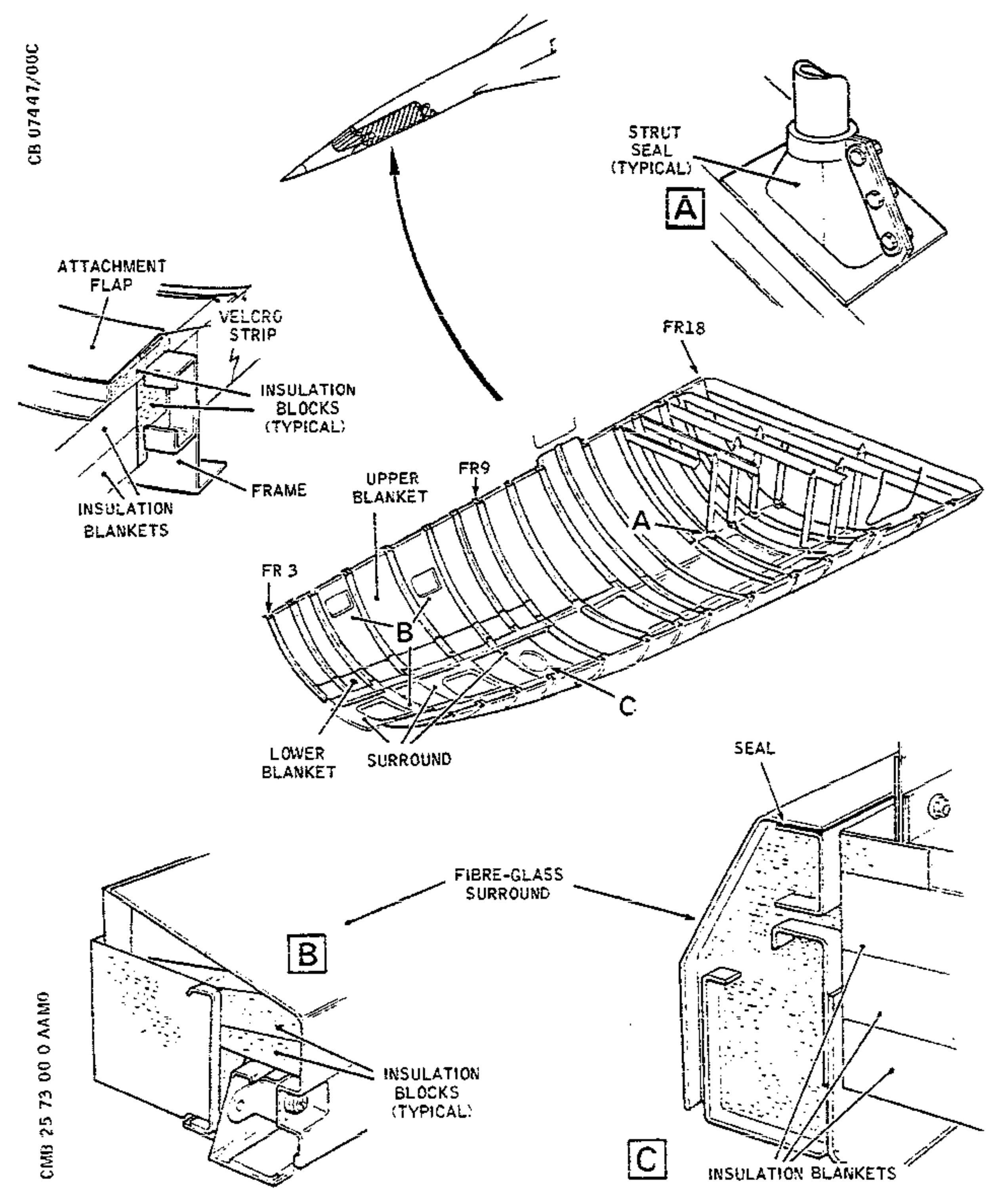
The insulation material is made up from glass fibre packs into blankets and blocks of the requisite thickness and shape and covered in fire-resistant sheets of Nomex paper and rubberized fabric secured by heat-sealing and adhesive. Blankets are made in upper and lower sections to fit between the frames. Velcro tape is the principal means of attaching blankets together and securing blocks to frames and structure. Surrounds of fibre glass and resin are bolted to the access panels and around access panel apertures to contain the insulation material. Rubber seals are fitted to the fibre glass surrounds to prevent the ingress of hydraulic fluid contaminating the structure.

Insulation material should not be maltreated, creased or crushed to less than 75 per cent of its original thickness or its insulating quality is impaired. It can be repaired in-situ.

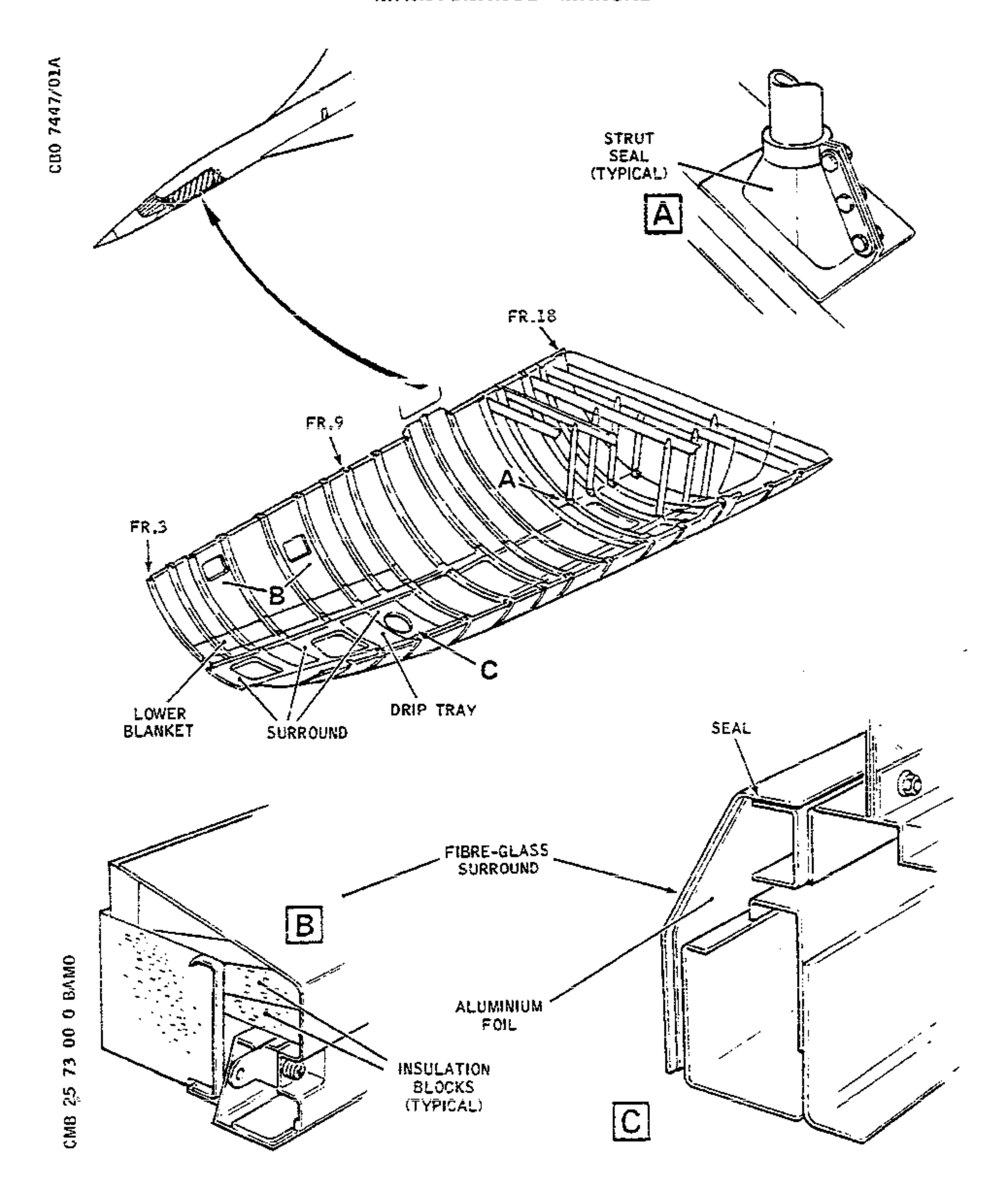
After SB 25-042 For A/C 001-007,

Sidewall insulation material, and insulation material aft of frame 8, is made up from glass fibre packs into blankets and blocks of the requisite thickness and shape and covered in fire-resistant sheets of Nomex paper and rubberized fabric secured by heat-sealing and adhesive. Blankets are made in upper and lower sections to fit between the frames. Velcro tape is the principal means of attaching blankets together and securing blocks to frames and structure. Surrounds of fibre glass and resin are bolted to the access panels and around access panel apertures to contain the insulation material along the sidewall and aft of frame 8.

Insulation along the bottom section of the underfloor equipment compartment, between frames 3 and 8, consist of a fibre glass panel and a drip tray that are each backed with aluminium foil which prevents the fibre glass becoming saturated with deposits from hydraulic fluid mist contained by the compartment. Fibre glass surrounds, for the access



Forward Underfloor Equipment Compartment
Insulation (Before SB 25-042)
Figure 001



Forward Underfloor Equipment Compartment
Insulation (After SB 25-042)
Figure 002

R panel apertures, are similarly backed with foil and rubber
R seals fitted between layers of fibre glass to prevent the
R ingress of hydraulic fluid contaminating the structure.
R Similar fibre glass panels backed with foil are fitted to the
R access panels.

R Insulation material should not be maltreated, creased or
R crushed to less than 75 per cent of its original thickness
R or its insulating quality is impaired. It can be repaired
R in-situ.

FORWARD UNDERFLOOR INSULATION - REMOVAL/INSTALLATION

CAUTION: INSULATION BLANKETS MUST NOT BE CRUSHED, AND IF THEY ARE REDUCED TO 75% OF NOMINAL THICKNESS THEY MUST BE REPLACED.

1. General

Insulation in the lower section of the nose fuselage is installed between frames 3 and 9. It is mainly comprised of insulation blankets secured by Velcro tape, insulation blocks secured by Velcro tape and glass fibre surround panels to retain insulation blocks around access door apertures. The surround panels are manufactured in separate pieces to facilitate removal and installation.

Access to the insulation is gained via the appropriate access door.

2. Lower Nose Fuselage Insulation

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clip	-
Non-corrodible, locking wire 0.028 in (0.7 mm) dia	-
Methyl-ethyl-ketone (MEK) (Ref. 20-30-00, No.470)	-
Warm air blower capable of producing air at 120 to 150 deg C (248-302 deg F)	-
Torque spanner, 0-50 lbf in (0-0.57 mdaN)	-

B. Prepare to Remove Insulation

(1) Electrically isolate the door warning microswitch by tripping the DOOR WARN SYS SUP circuit breaker W281 on panel 15-216, map ref. A26; fit a safety clip.

NOTE: It is not necessary to isolate the microswitch

when removing insulation between frames 3 and 4 or between frames 8 and 9.

(2) Gain access to the insulation, as follows:

(a) Remove the screws securing access doors 121DB and 121GB; remove the doors.

(b) Remove access door 121FB:

(b1) Operate the handle to unlock the door.

(b2) Lift the door inward and manoeuvre it out of the aperture.

C. Remove Insulation on Access Doors (Ref. Fig. 401)

(1) Access door 121DB:

(a) Remove the locking wire and the 8 hexagon-headed bolts securing the insulation blanket.

(b) Remove the insulation blanket, taking care not to crease or damage it.

(2) Access doors 121FB and 121GB:

(a) Unfasten the Velcro tape securing the insulation blanket; remove the blanket, taking care not to crease or damage it.

D. Install Insulation on Access Doors (Ref. Fig. 401)

(1) Access door 121DB:

(a) Visually inspect the insulation blanket for damage and deterioration.

(b) Carefully reposition the insulation blanket and secure it with the 8 hexagon-headed bolts and countersunk washers.

(c) Wire-lock the hexagon-headed bolts in adjacent pairs.

(2) Access doors 121FB and 121GB:

(a) Visually inspect the insulation blanket for damage and deterioration.

(b) Carefully reposition the insulation blanket

and secure with Velcro tape.

E. Remove Insulation, Frames 4 to 5 (Ref. Fig. 401)

(1) Unfasten the Velcro tape securing the insulation blanket; remove the blanket, taking care not to crease or damage it.

(2) Unfasten the Velcro tape securing the insulation blocks (one block positioned on each side of the blanket); remove the insulation blocks.

(3) Examine the area and remove any debris.

F. Install Insulation, Frames 4 to 5 (Ref. Fig. 401)

(1) Visually inspect the insulation for damage and deterioration.

(2) Carefully reposition the insulation blocks and secure them with Velcro tape.

(3) Carefully reposition the insulation blanket and secure it with Velcro tape.

G. Remove Insulation, Frames 3 to 4 (Ref. Fig. 401)

(1) Remove the glass fibre surround panels at access door 121DB aperture as follows:

NOTE: Remove the rear panel first, followed by the right-hand and left-hand panels.

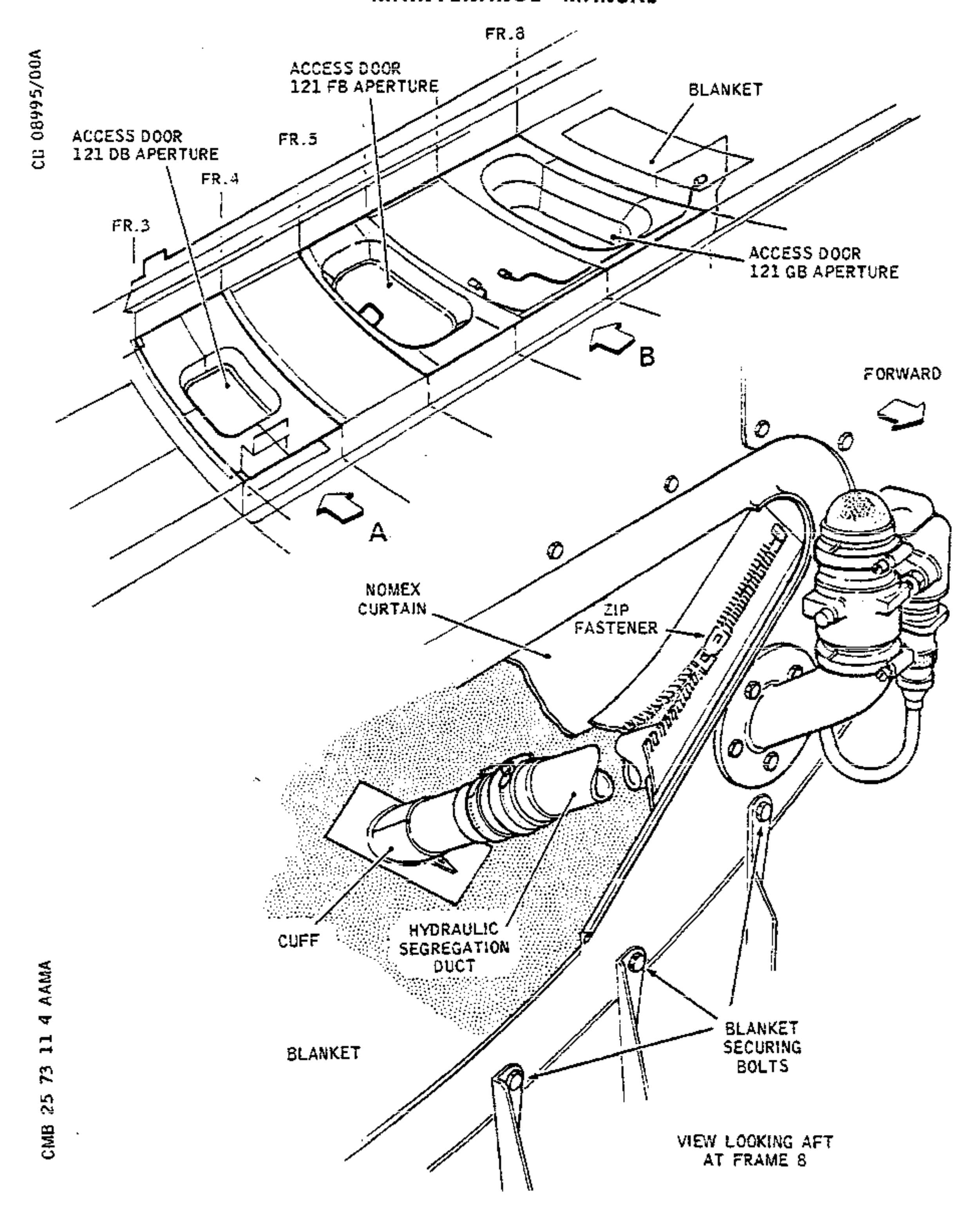
(a) Remove the bolts and flat washers securing each of the surround panels; remove the panels.

(b) If necessary, remove the insulation attached to each surround panels by abrading with MEK. Take care not to damage the glass fibre surface. A warm air blower operating at between 120-150 deg C (248-302 deg F) may be used to assist in the removal.

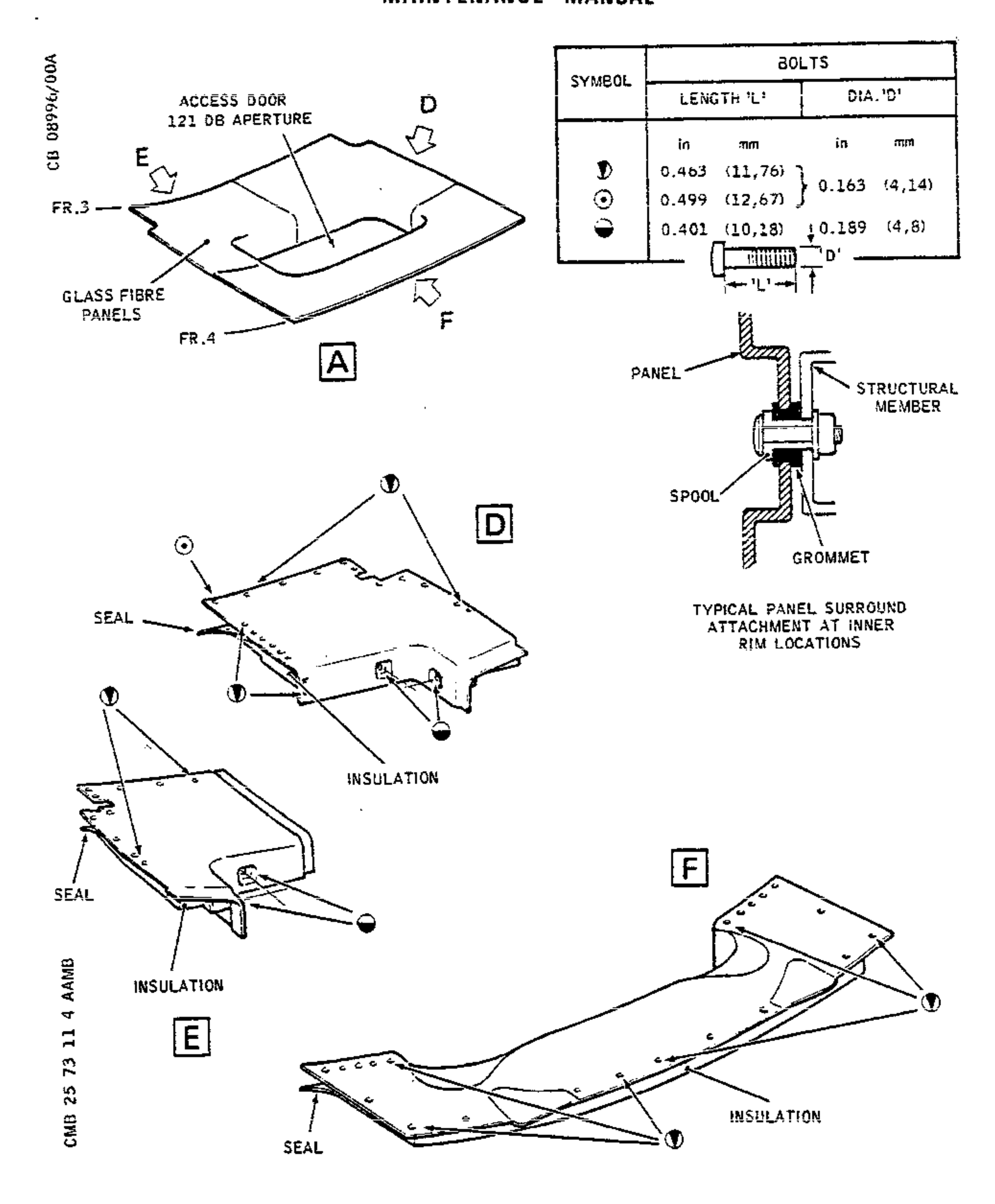
WARNING: CHLORINATED SOLVENTS, LIQUID OR VAPOUR MUST NOT BE USED.

(2) Remove the 28 insulation blocks exposed by the removal of the surround panels.

H. Install Insulation, Frames 3 to 4 (Ref. Fig. 401)

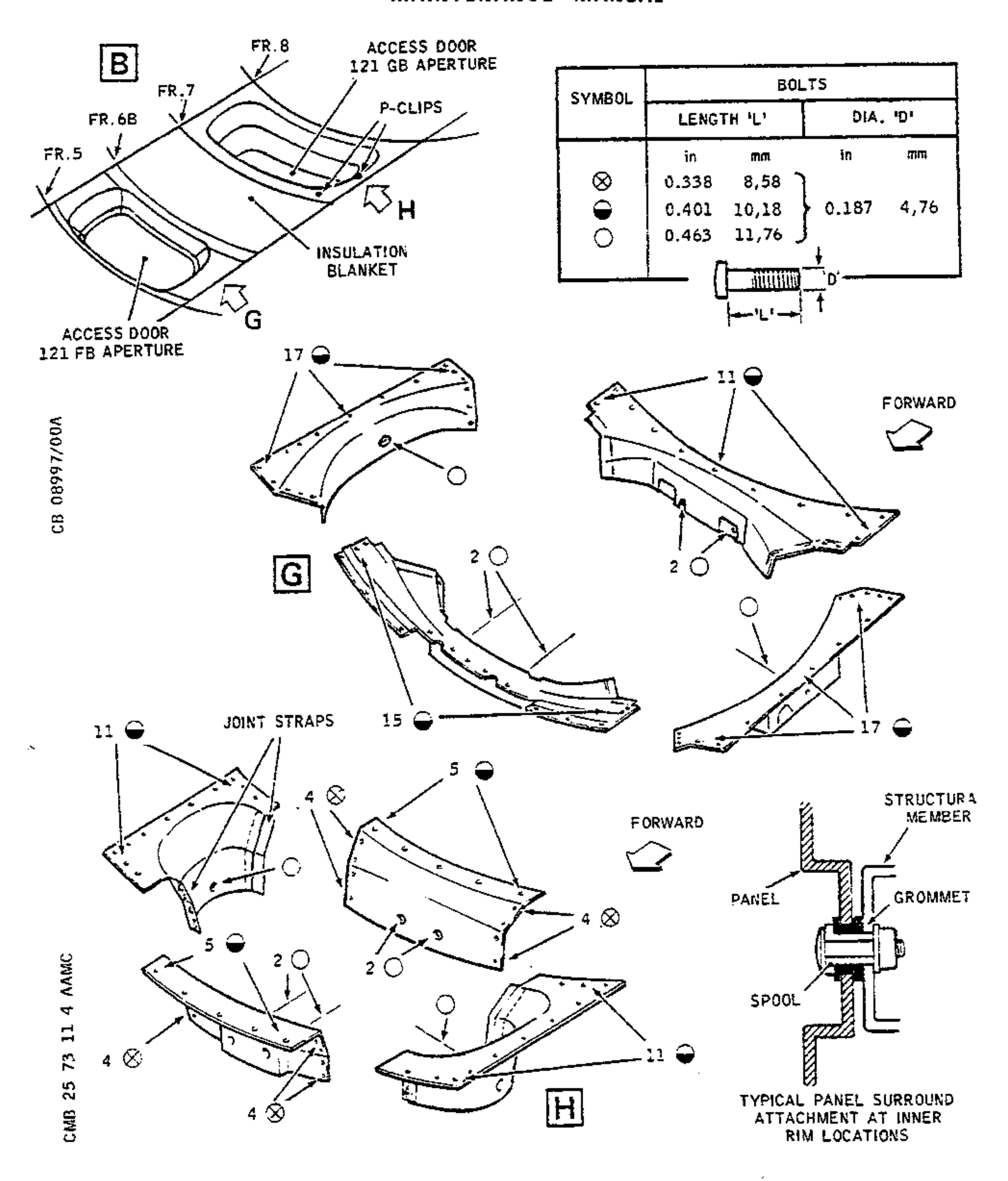


Forward Underfloor Insulation (Sheet 1 of 3)
Figure 401



SYMBOL	BOLTS			
	LENGTH 'L'		DIA. 'D'	
	in	mm	in	mm
◑	0.463	(11,76)	0.163	(4,14)
⊙	0.499	(12,67)		
⊖	0.401	(10,18)	0.189	(4,8)

Forward Underfloor Insulation (Sheet 2 of 3)
Figure 401



SYMBOL	BOLTS			
	LENGTH 'L'		DIA. 'D'	
	in	mm	in	mm
⊗	0.338	8,58	0.187	4,76
◒	0.401	10,18		
○	0.463	11,76		

Forward Underfloor Insulation (Sheet 3 of 3)
Figure 401

(1) Visually inspect the insulation for damage and deterioration and the exposed structure for debris.

(2) Install the 28 insulation blocks around access door 121DB aperture.

(3) Install the glass fibre surround panels at access door 121DB aperture as follows:

NOTE: Each bolt securing the inner rim of a panel passes through a spool which is fitted in a grommet to engage with the structure.

(a) Visually inspect the seal of the surround panels for damage and deterioration; if necessary secure a new seal using an adhesive (Ref. 20-25-15).

(b) Ensure that serviceable grommets and spools are fitted in the rim recesses of each panel.

(c) Lightly secure the forward left-hand member of the surround with 10 pan-head bolts and flat washers at the outer edge and 2 pan-head bolts at the inner rim.

(d) Lightly secure the forward right-hand member of the surround with 19 pan-head bolts and flat washers at the outer edge and 2 pan-head bolts at the inner rim.

(e) Lightly secure the rear member of the surround with 25 pan-head bolts and flat washers at the outer edge and 4 pan-head bolts at the inner rim.

(f) Tighten the bolts attaching the surround sufficiently to compress the seal to approximately 0.04 in (1.0 mm) at each bolt position.

I. Remove Insulation, Frame 5 to 8 (Ref. Fig. 401)

(1) Unfasten the Velcro tape securing the insulation blanket between frames 6B and 7; remove the blanket, taking care not to crease or damage it.

(2) Remove the glass fibre surround panels at access door 121FB aperture, as follows:

NOTE: Remove the left-hand and right-hand panels first.

(a) Remove the bolts and flat washers securing each of the surround panels; remove the panels.

(b) If necessary, remove the insulation attached to each surround of the surround panels by abrading with MEK. Take care not to damage the glass fibre surface. A warm air blower operating at between 120° and 150° C (248 and 302 °F) may be used to assist in the removal.

WARNING: CHLORINATED SOLVENTS, LIQUID OR VAPOUR MUST NOT BE USED.

(3) Remove the 18 insulation blocks exposed by the removal of the surround panels.

(4) Remove the glass fibre surround panels at access door 121GB aperture, as follows:

(a) Remove the 2 P-clips securing the ATC1 antenna aerial cable to the surround panel.

(b) Remove the bolts and flat washers securing the surround panels; remove the panels.

NOTE: Remove the forward and aft panels first, leaving the joint straps attached to the side panels.

(c) If necessary, remove the insulation attached to the forward and rear members of the surround by abrading with MEK. Take care not to damage the glass fibre surface. A warm air blower operating at between 120° and 150°C (248 and 302° F) may be used to assist in the removal.

WARNING: CHLORINATED SOLVENTS, LIQUID OR VAPOUR MUST NOT BE USED.

(5) Remove the 19 insulation blocks exposed by the removal of the surround panel.

J. Install insulation, Frame 5 to 8 (Ref. Fig. 401)

(1) Visually inspect the insulation for damage and deterioration and the exposed structure for debris.

(2) Install the 19 insulation blocks around access door 121GB aperture.

(3) Install the glass fibre surround panels at access door

121GB aperture, as follows:

NOTE: Each bolt securing the inner rim of a panel passes through a spool which is fitted in a grommet to engage with the structure.

(a) Visually inspect the seal of the surround panels for damage and deterioration; if necessary, secure a new seal using an adhesive (Ref.20-25-15).

(b) Ensure that serviceable grommets and spools are fitted in the rim recesses of each panel.

(c) Lightly secure the right-hand panel of the surround, complete with the joint straps, with 11 pan-head bolts and flat washers at the outer edge and a pan head bolt at the inner rim.

(d) Lightly secure the left-hand panel of the surround, complete with the joint straps, with 11 pan-head bolts and flat washers at the outer edge and a pan-head bolt at the inner rim.

(e) Lightly secure the forward member of the surround with 13 pan-head bolts and flat washers at the outer edge and 2 pan-head bolts at the inner rim.

(f) Lightly secure the rear member of the surround with 13 pan-head bolts and flat washers at the outer edge and 2 pan-headed bolts at the inner rim.

(g) Tighten the bolts attaching the surround sufficiently to compress the seal to approximately 0.04 in (1.0 mm) at each bolt position.

(h) Secure the ATC1 antenna aerial cable to the surround with the 2 P-clips.

(4) Install the 18 insulation blocks around access door 121FB aperture.

(5) Install the glass fibre surround panels at access door 121FB aperture, as follows:

NOTE: Each bolt securing the inner rim of a panel passes through a sppol, which is fitted in a grommet to engage with the structure.

(a) Visually inspect the seal of the surround panels for damage and deterioration; if necessary, secure a new seal using an adhesive (Ref.20-25-15).

(b) Ensure that serviceable grommets and spools are fitted in the rim recesses of each panel.

(c) Lightly secure the forward member of the surround panel with 15 pan-head bolts and flat washers at the outer edge and 2 pan-head bolts at the inner rim.

(d) Lightly secure the rear panel of the surround with 11 pan-head bolts and flat washers at the outer edge and 2 pan-head bolts at the inner rim.

(e) Lightly secure the right-hand panel of the surround with 17 pan-head bolts and flat washers at the edge and a pan-head bolt at the inner rim.

(f) Lightly secure the left-hand panel of the surround with 17 pan-head bolts and flat washers at the outer edge and a pan-head bolt at the inner rim.

(g) Tighten the bolts attaching the surround panels sufficiently to compress the seal to approximately 0.04 in (1.00 mm) at each bolt position.

(6) Carefully reposition the insulation blanket between frames 6B and 7 and secure it with Velcro tape.

K. Remove Insulation, Frames 8 to 9 (Ref. Fig. 401)

(1) Gain access to the insulation by unzipping the zip fastener of the nomex curtain at frame 8.

(2) Remove the 8 hexagon-headed bolts and countersunk washers securing the insulation blanket, sealing strip and packing at frame 8; remove the sealing strip and packing.

(3) Remove the hexagon-headed bolt, flat washer and nut securing the cuff of the insulation blanket to the hydraulic segregation duct.

(4) Unfasten the Velcro tape securing the insulation blanket; remove the blanket, taking care not to

crease or damage it.

(5) Infasten the Velcro tape securing the insulation blocks (one block positioned on each side of the blanket); remove the insulation blocks.

L. Install Insulation, Frames 8 to 9 (Ref. Fig. 401)

(1) Visually inspect the insulation for damage and deterioration, and the exposed structure for debris.

(2) Carefully reposition the insulation blocks and secure them with Velcro tape.

(3) Carefully reposition the insulation blanket and secure it with Velcro tape.

(4) Secure the cuff of the insulation blanket to the hydraulic segregation duct with the hexagon-headed bolt, flat washer and nut.

(5) Secure the insulation blanket, sealing strip and packing at frame 8 with the 8 hexagon-headed bolts and countersunk washers. Torque-tighten to 15 lbf in (0.17 mdaN).

(6) Zip-up the zip fastener of the nomex curtain at frame 8.

M. Conclusion

(1) Check that the area is clean and free from debris and tools.

(2) Refit access door 121DB with the 40 attachment screws. Torque-tighten the screws to between 40 and 45 lbf in (0.45 to 0.50 mdaN).

(3) Refit access door 121FB by operating the door handle to retract the door bolts and manoeuvre the door into the fuselage aperture; push the handle inward and stow it.

(4) Refit access door 121GB with the 30 attachment screws. Torque-tighten the screws to between 40 and 45 lbf in (0.45 and 0.50 mdaN).

(5) Remove the safety clip from circuit breaker W281 on panel 15-216, map ref. A26, and reset the circuit breaker.

FORWARD UNDERFLOOR INSULATION - REMOVAL/INSTALLATION

After SB 25-042 For A/C 001-007,

CAUTION: THE INSULATION BLANKET IS NOT TO BE CRUSHED, AND IF IT IS REDUCED TO 75% OF NOMINAL THICKNESS, IT IS TO BE REPLACED.

1. General

Lower nose fuselage insulation is installed between frames 3 and 9. It is mainly comprised of an insulation blanket between frames 8 and 9, a glass fibre drip tray between frames 4 and 5, a glass fibre panel between frames 6B and 7, and glass fibre surround panels around access door apertures. The drip tray glass fibre panel and surround panels are manufactured in separate pieces to facilitate removal and installation.

Access to the insulation is gained via the appropriate access door.

2. Lower Nose Fuselage Insulation

A. Equipment and Materials

DESCRIPTION	PART NO.
Circuit breaker safety clip	-
Torque spanner, 0-50 lbf in (0-0.57 mdaN)	-

B. Prepare to Remove Insulation

(1) Electrically isolate the door warning microswitch by tripping the DOOR WARN SYS SUP circuit breaker W281 on panel 15-216, map ref. A26; fit a safety clip.

NOTE: It is not necessary to isolate the micro-switch when removing insulation between frames 3 and 4 or between frames 8 and 9.

(2) Gain access to the insulation, as follows:

(a) Remove the screws securing access doors 121DB

and 121GB; remove the doors.

(b) Remove access door 121FB:

(b1) Operate the handle to unlock the door.

(b2) Lift the door inward and manoeuvre it out of the aperture.

C. Remove Insulation On Access Doors (Ref. Fig. 401)

(1) Access doors 121DB and 121FB:

(a) Remove the 8 pan-head bolts and flat washers securing the glass-fibre cover; remove the cover.

(2) Access door 121GB:

(a) Remove the 10 pan-head bolts and flat washers securing the glass-fibre cover; remove the cover.

D. Install Insulation On Access Doors (Ref. Fig. 401)

(1) Access doors 121DB and 121FB:

(a) Position the glass-fibre cover on the rear of the door and secure it with the 8 pan-head bolts and flat washers.

(2) Access door 121GB:

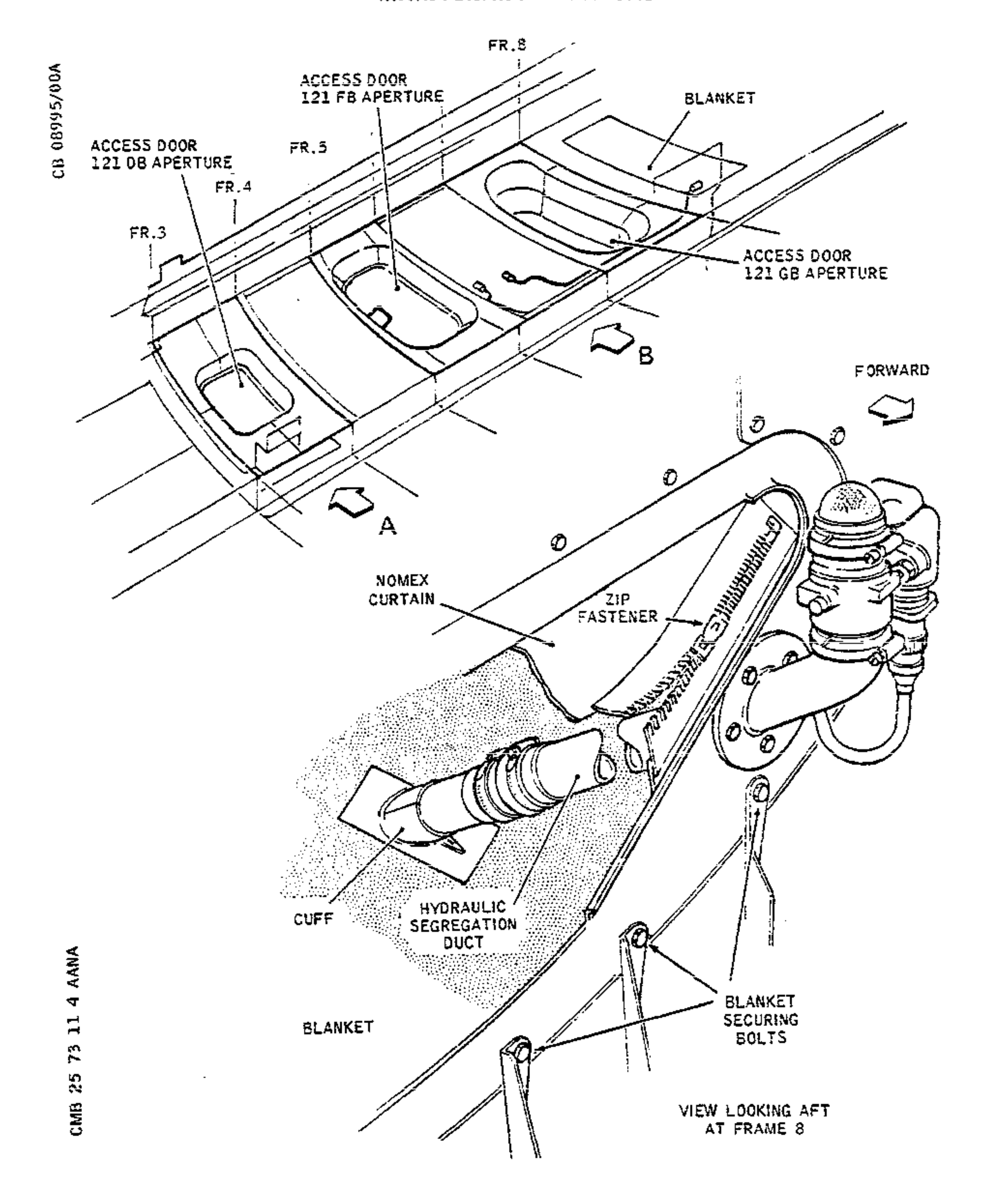
(a) Position the glass-fibre cover on the rear of the door and secure it with the 10 pan-head bolts and flat washers.

E. Remove Insulation, Frames 4 to 5 (Ref. Fig. 401)

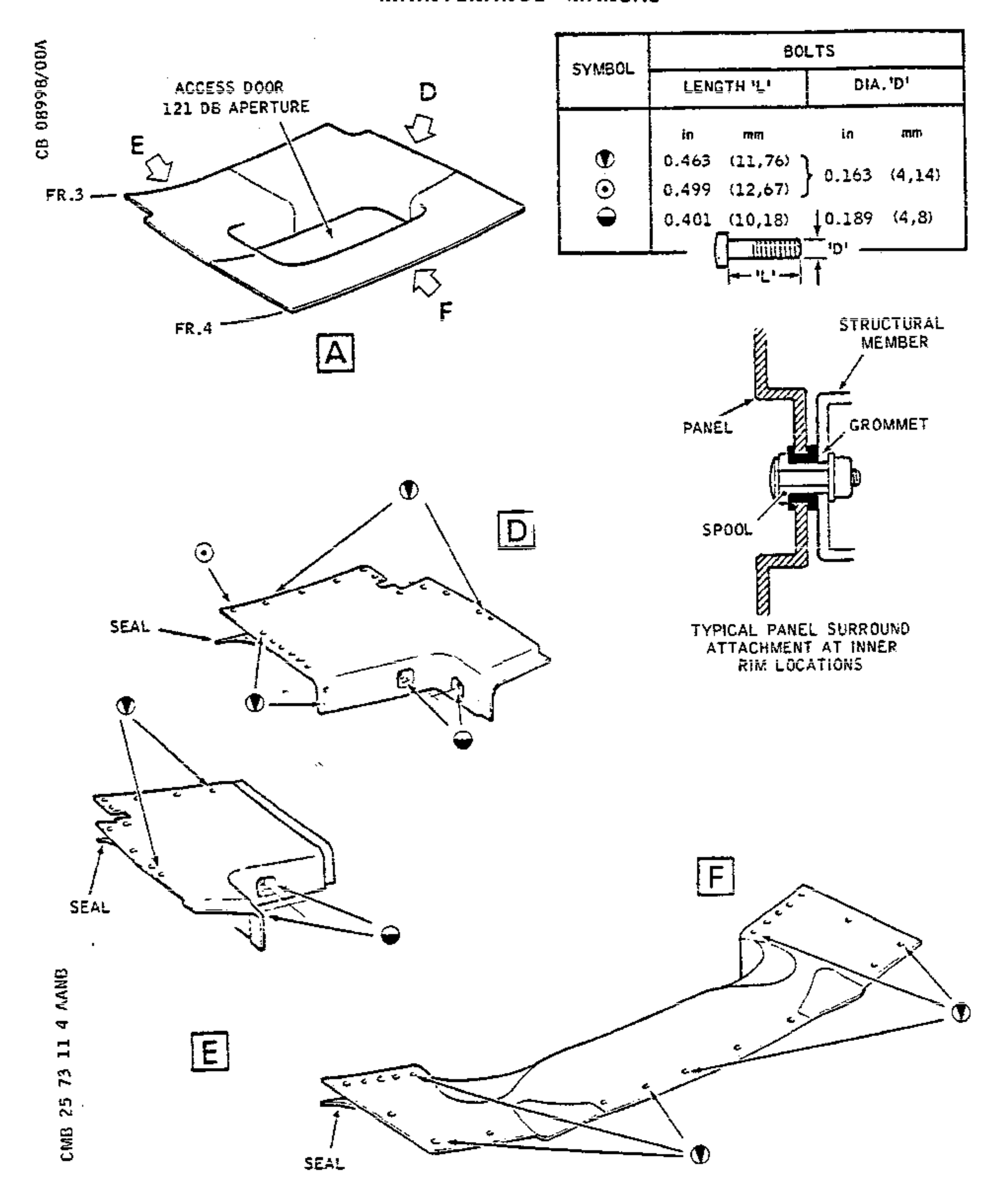
(1) Remove the 31 pan-head bolts and flat washers securing the glass-fibre drip tray at its outer edge.

NOTE: 11 bolts and washers securing the drip tray at frame 5 also secure part of the forward panel of the glass-fibre surround at access door 121DB aperture.

The 9 bolts and washers securing the drip tray at frame 4 also secure part of the rear panel of the glass-fibre surround at access door 121DB aperture.

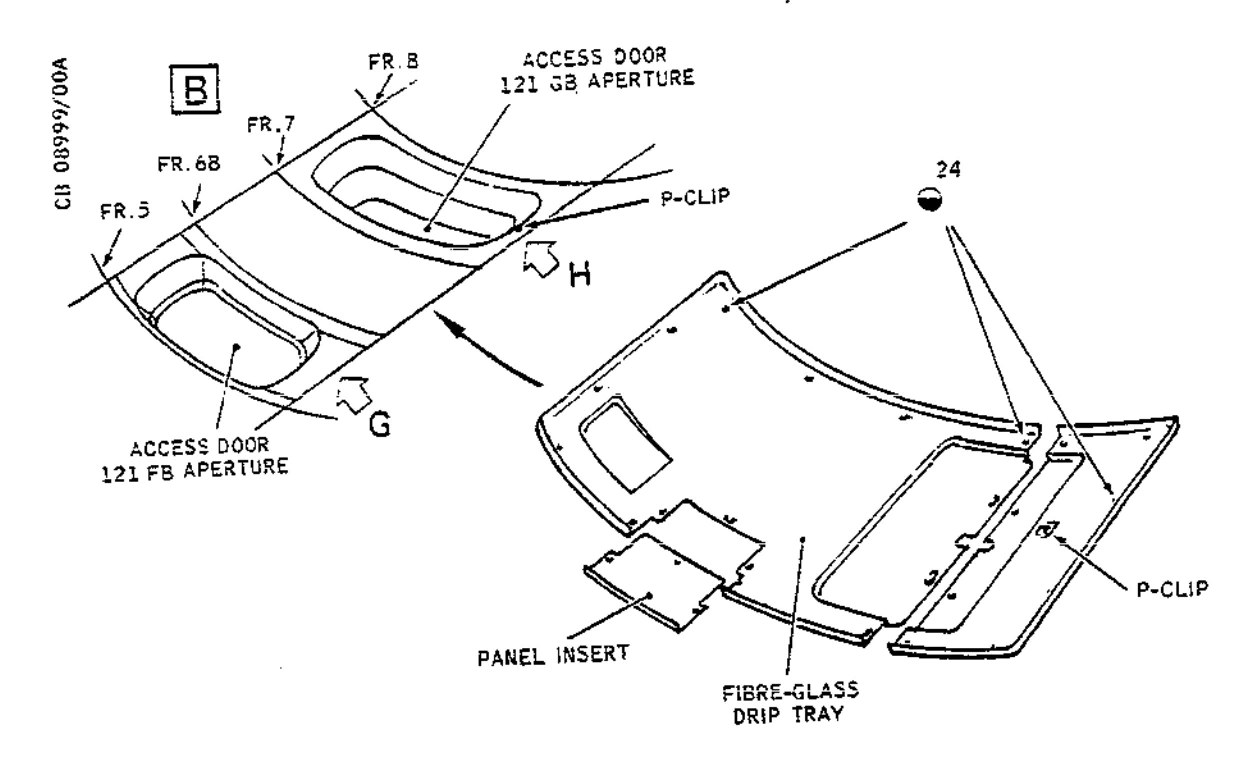


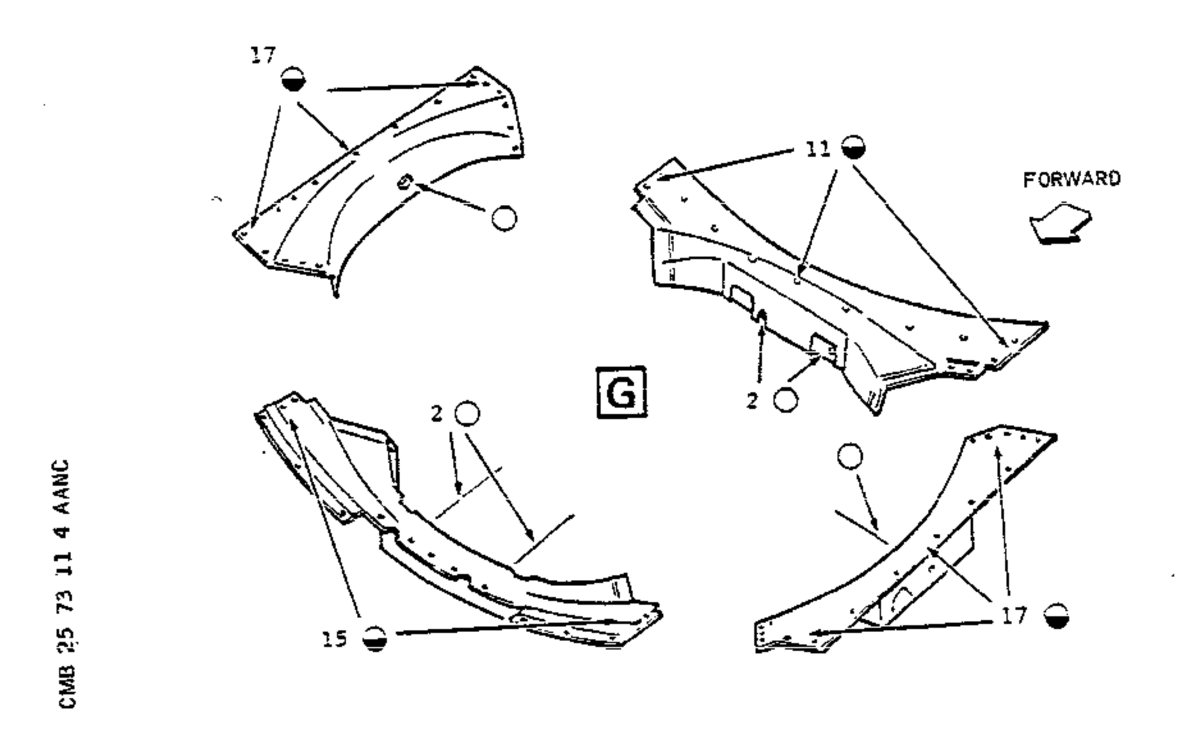
Forward Underfloor Insulation (Sheet 1 of 4)
Figure 401



SYMBOL	BOLTS	
	LENGTH 'L' in (mm)	DIA. 'D' in (mm)
	0.463 (11,76)	0.163 (4,14)
⊙	0.499 (12,67)	
	0.401 (10,18)	0.189 (4,8)

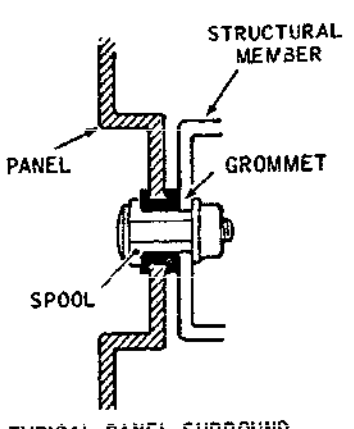
Forward Underfloor Insulation (Sheet 2 of 4)
Figure 401





Forward Underfloor Insulation (Sheet 3 of 4)
Figure 401

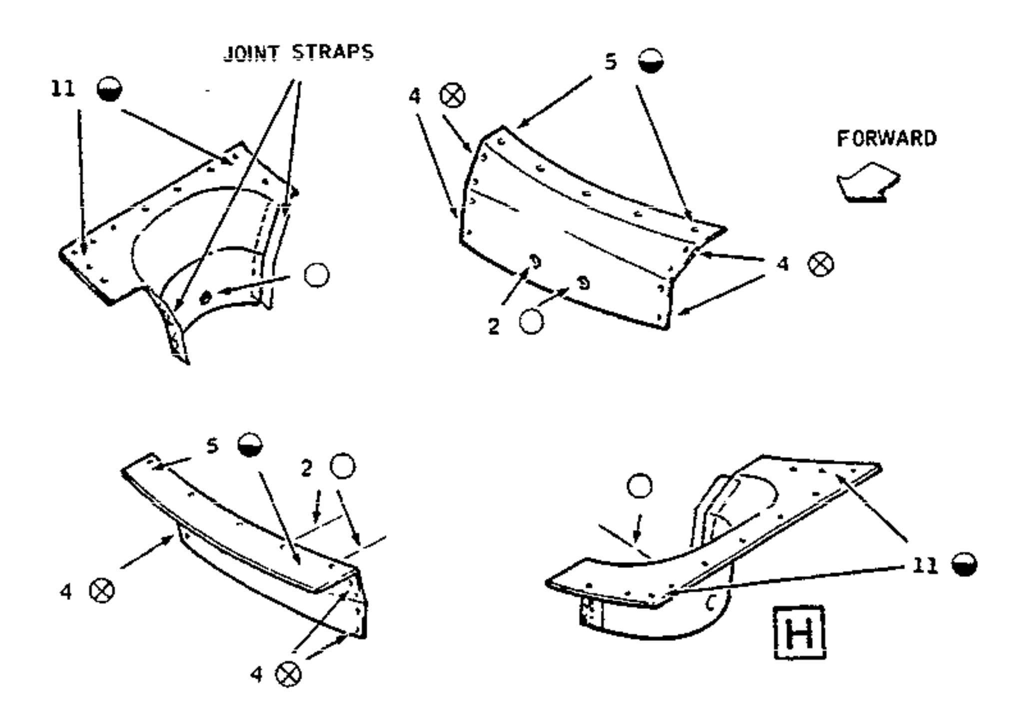
CB 09000/00A



TYPICAL PANEL SURROUND ATTACHMENT AT INNER RIM LOCATIONS

SYMBOL	BOLTS			
	LENGTH 'L'		DIA. 'D'	
	in	mm	in	mm
⊗	0.338	8,58	0.189	4,8
◒	0.401	10,18		
○	0,463	11,76		

'L' 'D'



CMB 25 73 11 4 AAND

Forward Underfloor Insulation (Sheet 4 of 4)
Figure 401

Printed in England

(2) Remove the bolts securing the drip tray in three parts; remove the drip tray.

F. Install Insulation, Frames 4 to 5 (Ref. Fig. 401)

(1) Visually inspect the exposed structure for damage and cleanliness.

(2) Check that the foil covering the 3 pieces of the drip tray is intact; if it is damaged repair the foil in accordance with the instructions given in 25-71-11, Approved Repairs.

(3) Assemble the 3 pieces of the drip tray and secure with the 10 pan-head bolts.

(4) Secure the drip tray with 31 pan-head bolts and flat washers at its outer edge.

NOTE: 11 bolts and washers securing the drip tray at frame 5 also secure part of the forward panel of the glass-fibre surround at access door 121FB aperture. The 9 bolts and washers securing the drip tray at frame 4 also secure part of the rear panel of the glass-fibre surround at access door 121DB aperture.

G. Remove Insulation, Frames 3 to 4 (Ref. Fig. 401)

(1) Remove the bolts and washers securing each of the glass-fibre surround panels at access door 121DB aperture; remove the panels.

H. Install Insulation, Frames 3 to 4 (Ref. Fig. 401)

(1) Visually inspect the exposed structure for damage and cleanliness.

(2) Install the glass-fibre surround at access door 121DB aperture as follows:

NOTE: Each bolt securing the inner rim of a panel passes through a spool, which is fitted in a grommet, to engage with the structure.

(a) Visually inspect the seal of the surround panels for damage and deterioration; if necessary secure a new seal using an adhesive (Ref. 20-25-15).

(b) Ensure that serviceable grommets and spools

are fitted in the rim recesses of each panel.

(c) Check that the foil covering on the panel is intact; if it is damaged repair the foil in accordance with the instructions given in 25-71-11, Approved Repairs.

(d) Lightly secure the forward left-hand surround panel with 10 pan-head bolts and flat washers at the outer edge and 2 pan-head bolts at the inner rim.

(e) Lightly secure the forward right-hand surround panel with 19 pan-head bolts and flat washers at the outer edge and 2 pan-head bolts at the inner rim.

(f) Lightly secure the rear surround panel with 25 pan-head bolts and flat washers at the outer edge and 4 pan-head bolts at the inner rim.

NOTE: 9 bolts and washers securing the member at frame 4 also secure part of the glass-fibre drip tray.

(g) Tighten the bolts attaching the surround to compress the seal to approximately 0.04 in (1.0 mm) at each bolt position.

I. Remove Insulation, Frames 5 to 8 (Ref. Fig. 401)

(1) Remove the glass-fibre panel between frames 6B and 7 as follows:

(a) Remove the P-clip securing the ATC 1 antenna aerial cable to the panel.

(b) Remove the bolts and washers securing the panel at the outer edge.

(c) Disassemble the panel, in three parts, by removing the bolts and washers securing the panel insert, and by removing the bolts and washers securing the left-hand side panel; remove the panel.

(2) Remove the glass-fibre surround at access door 121FB aperture as follows:

NOTE: Remove the left-hand and right-hand panels

first.

(a) Remove the bolts and flat washers securing each of the surround panels; remove the panels.

(3) Remove the glass-fibre surround at access door 121GB aperture as follows:

(a) Remove the P-clip securing the ATC 1 antenna aerial cable to the surround.

(b) Remove the bolts and flat washers securing the surround panels; remove the panels.

NOTE: Remove the forward and aft panels first, leaving the joint straps attached to the side panels.

J. Install Insulation, Frames 5 to 8 (Ref. Fig. 401)

(1) Visually inspect the exposed structure for damage and cleanliness.

(2) Install the glass-fibre surround at access door 121GB aperture as follows:

NOTE: Each bolt securing the inner rim of a panel passes through a spool, which is fitted in a grommet, to engage with the structure.

(a) Visually inspect the seal of the surround panels for damage and deterioration; if necessary, secure a new seal using an adhesive (Ref. 20-25-15).

(b) Ensure that serviceable grommets and spools are fitted in the rim recesses of each panel.

(c) Check that the foil covering on the surround panels is intact; if it is damaged repair the foil in accordance with the instructions given in 25-71-11, Approved Repairs.

(d) Lightly secure the right-hand surround panel with 11 pan-head bolts and flat washers at the outer edge and 1 pan-head bolt at the inner rim.

(e) Lightly secure the left-hand surround panel with 11 pan-head bolts and flat washers at the outer edge and 1 pan-head bolt at the inner rim.

(f) Lightly secure the forward surround panel with 13 pan-head bolts and flat washers at the outer edge and 2 pan-head bolts at the inner rim.

(g) Lightly secure the rear surround panel with 13 pan-head bolts and flat washers at the outer edge and 2 pan-head bolts at the inner rim.

(h) Tighten the bolts attaching the surround to compress the seal to approximately 0.04 in (1.0 mm) at each bolt position.

(i) Secure the ATC 1 antenna aerial cable to the surround with the P-clip.

(3) Install the glass-fibre surround at access panel 121FB aperture as follows:

NOTE: Each bolt securing the inner rim of a panel passes through a spool, which is fitted in a grommet, to engage with the structure.

(a) Visually inspect the seal of the surround panels for damage and deterioration; if necessary, secure a new seal using an adhesive (Ref. 20-25-15).

(b) Ensure that serviceable grommets and spools are fitted in the rim recesses of each panel.

(c) Check that the foil covering on the surround panels is intact; if it is damaged repair the foil in accordance with the instructions given in 25-71-11, Approved Repairs.

(d) Lightly secure the forward surround panel with 15 pan-head bolts and flat washers at the outer edge and 2 pan-head bolts at the inner rim.

NOTE: 11 bolts and washers securing the forward member at frame 5 also secure part of the glass-fibre drip tray.

(e) Lightly secure the rear surround panel with 11 pan-head bolts and flat washers at the outer edge and 2 pan-head bolts at the inner rim.

(f) Lightly secure the right-hand surround panel with 17 pan-head bolts and flat washers at the

outer edge and 1 pan-head bolt at the inner rim.

(g) Lightly secure the left-hand surround panel with 17 pan-head bolts and flat washers at the outer edge and 1 pan-head bolt at the inner rim.

(h) Tighten the bolts attaching the surround to compress the seal to approximately 0.04 in (1.0 mm) at each bolt position.

(4) Install the glass-fibre panel between frames 6B and 7 as follows:

(a) Check that the foil covering on the three parts of the panel is intact; if it is damaged repair the foil in accordance with the instructions given in 25-71-11, Approved Repairs.

(b) Position the three parts of the panel between frames 6B and 7, engaging the door warning microswitch cable and the ATC 1 antenna cable in their appropriate grommets.

(c) Assemble the three parts of the panel with the 4 pan-head bolts and countersunk washers securing the panel insert, and the 2 pan-head bolts and countersunk washers securing the left-hand side panel.

(d) Secure the panel with the 18 pan-head bolts and flat washers at the outer edge.

(e) Secure the ATC 1 antenna aerial cable to the panel with the P-clip.

K. Remove Insulation, Frames 8 to 9 (Ref. Fig. 401)

(1) Gain access to the insulation by unzipping the zip fastener of the nomex curtain at frame 8.

(2) Remove the bolts and washers securing the insulation blanket, sealing strip and packing at frame 8; remove the sealing strip and packing.

(3) Remove the bolt, washer and nut securing the insulation blanket cuff to the hydraulic segregation duct.

(4) Unfasten the Velcro tape securing the insulation blanket; remove the blanket, taking care not to crease or damage it.

(5) Unfasten the Velcro tape securing the insulation blocks, one block positioned each side of the blanket; remove the insulation blocks.

L. Install Insulation, Frames 8 to 9 (Ref. Fig. 401)

(1) Visually inspect the insulation for damage and deterioration, and the exposed structure for debris.

(2) Carefully reposition the insulation blocks and secure them with Velcro tape.

(3) Carefully reposition the insulation blanket and secure it with Velcro tape.

(4) Secure the insulation blanket cuff to the hydraulic segregation duct with the hexagon-headed bolt, flat washer and nut.

(5) Secure the insulation blanket, sealing strip and packing at frame 8, with the 8 hexagon-headed bolts and countersunk washers. Torque-tighten to 15 lbf in (0.17 mdaN).

(6) Zip-up the zip fastener of the nomex curtain at frame 8.

M. Conclusion

(1) Check that the area is clean and free from debris and tools.

(2) Refit access door 121DB with the 40 attachment screws. Torque-tighten the screws to between 40 and 45 lbf in (0.45 to 0.50 mdaN).

(3) Refit access door 121FB:

(a) Operate the door handle to retract the door bolts.

(b) Manoeuvre the door into the fuselage aperture.

(c) Stow the handle by pushing inwards.

(4) Refit access door 121GB with the 30 attachment screws. Torque-tighten the screws to between 40 and 45 lbf in (0.45 to 0.50 mdaN).

(5) Remove the safety clip from circuit breaker W281 on

panel 15-216, map ref A26, and reset the circuit breaker.

Printed in England

R

FORWARD UNDERFLOOR INSULATION - APPROVED REPAIRS

WARNING: OBSERVE THE ELECTRICAL AND HYDRAULIC SAFETY PRECAUTIONS DETAILED IN REMOVAL/INSTALLATION.

1. General

Aluminium foil covered panels and covers are fitted between frames 3 and 8 (Ref. 53-10-00) and stringers 35RH and 35LH. The access door aperture surround panels are also covered with aluminium foil.

2. Repair Patch

A. Equipment and Materials

DESCRIPTION	PART NO.	VENDOR CODE
Aluminium foil commercial spec D3S0 foil gauge 0.002 to 0.003 in (0.05 to 0.076 mm)	-	K0028
Adhesive Bostik 2402 (Ref. 20-30-00, No.328)	-	
Primer Bostik 9252 (Ref. 20-30-00, No.683)	-	
Cleaning solvent BAC M302 (Ref. 20-30-00, No.473)	-	
Kimwipe tissues	-	
Non metallic scraper	-	
Grommets	D85-6123-100	

B. Limitations

(1) Temperature required during bonding is to be 18-25 deg C and relative humidity not greater than 75%.

NOTE: The strength of the bond progressively increases reaching a full state of cure after 72 hrs.

C. Repair Preparation (Ref. Fig. 801)

(1) Gain access to the area and remove the item for repair if possible (Ref. Removal and Installation).

(2) Remove the damaged aluminium foil using a non metallic scraper to a regular shape.

(3) Clean the area using a solvent moistened tissue. Check that the original foil surrounding the damaged area is flush and secure.

(4) Dry using a clean kimwipe tissue.

D. Bonding (Ref. 20-25-15 and 20-25-16)

NOTE: Foil surfaces to which adhesive is to be applied are to be pre-treated with primer.

(1) Cut a patch of aluminium foil to overlap the edges of the repair area by 1 in (25 mm).

NOTE: The foil patch must be of a regular shape with rounded corners and must cover the full extent of the damage plus the overlap. Aluminium foil bonded to surround panels must be clear of seal edge, holes and anchor nuts.

(2) Apply an even coat of the mixed adhesive, no more than 0.020 in (0.508 mm) to both of the surfaces to be bonded.

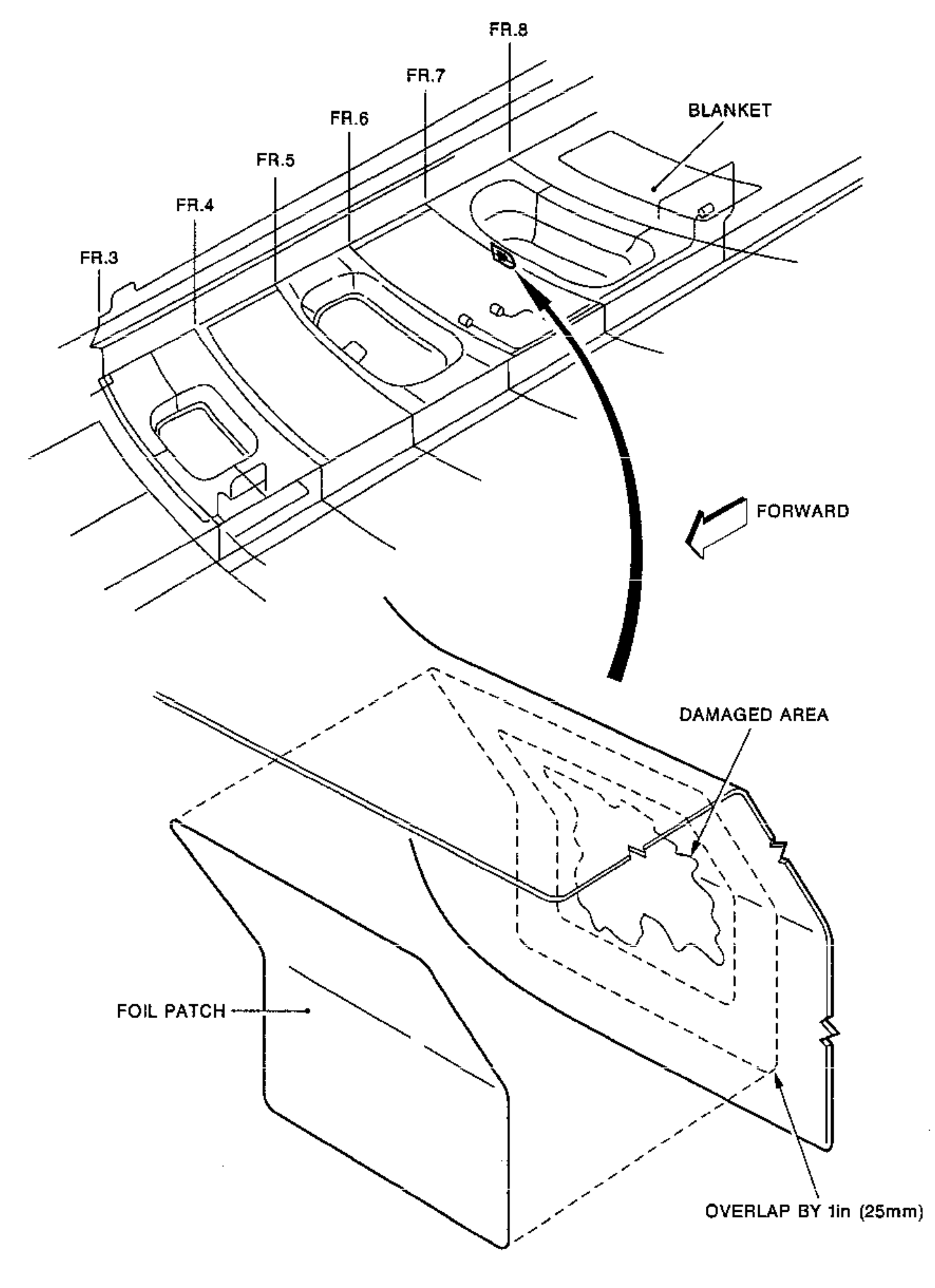
(3) Allow the adhesive to become touch dry (approx. 20 mins).

(4) Bring the surfaces together accurately positioned.

NOTE: Once mated they cannot be separated.

(5) Apply pressure to the area working from the centre to the edges to exclude all traces of air.

(6) Wherever practicable, maintain a positive pressure over the entire bonding area for at least 1 hr.



PRINTED IN ENGLAND

CMB 25 73 11 8 AAM0 00

Repair to Aluminium Foil
Figure 801

3. Part Replacement

A. Equipment and Materials

DESCRIPTION	PART NO.	VENDOR CODE
Aluminium foil commercial spec D3SO foil gauge 0.002 to 0.003 in (0.05 to 0.076 mm)	-	K0028
Adhesive Bostik 2402 (Ref. 20-30-00, No.328)	-	
Primer Bostik 9252 (Ref. 20-30-00, No.683)	-	
Cleaning solvent BAC M302 (Ref. 20-30-00, No.473)	-	
Kimwipe tissues	-	
Non metallic scraper	-	
Grommets	D85-6123-100	

B. Limitations

(1) Temperature required during bonding of foil is to be 18-25 deg C and relative humidity not greater than 75%.

NOTE: The strength of the bond progressively increases reaching a full state of cure after 72 hrs.

C. Preparation

(1) Remove and discard rubber grommets, if fitted, to the area under the repair.

(2) Clean away the damaged foil completely from the area with a non metallic scraper.

(3) Smooth down the original adhesive using a clean solvent moistened tissue.

D. Bonding (Ref. 20-25-15 and 20-25-16).

NOTE: Foil surfaces to which adhesive is to be applied are to be pre-treated with primer.

(1) Cover area with foil and cut to size. Overlap the foil by approximately 1 in (25 mm) for all surround panels.

NOTE: The aluminium foil is to be clear of the edge seal, holes and anchor nuts.

(2) Apply an even coat of the mixed adhesive, no more than 0.020 in (0.508 mm) to the surface to be bonded and the foil.

(3) Allow the adhesive to become touch dry (approx. 20 mins).

(4) Bring the surfaces together accurately positioned.

NOTE: Once mated, they cannot be separated.

(5) Apply pressure to the bonding area working from the centre to the edges to exclude all traces of air.

(6) When necessary, fit new grommets.

UNDERFLOOR COMPARTMENT (ABOVE NOSEWHEEL) - DESCRIPTION AND OPERATION

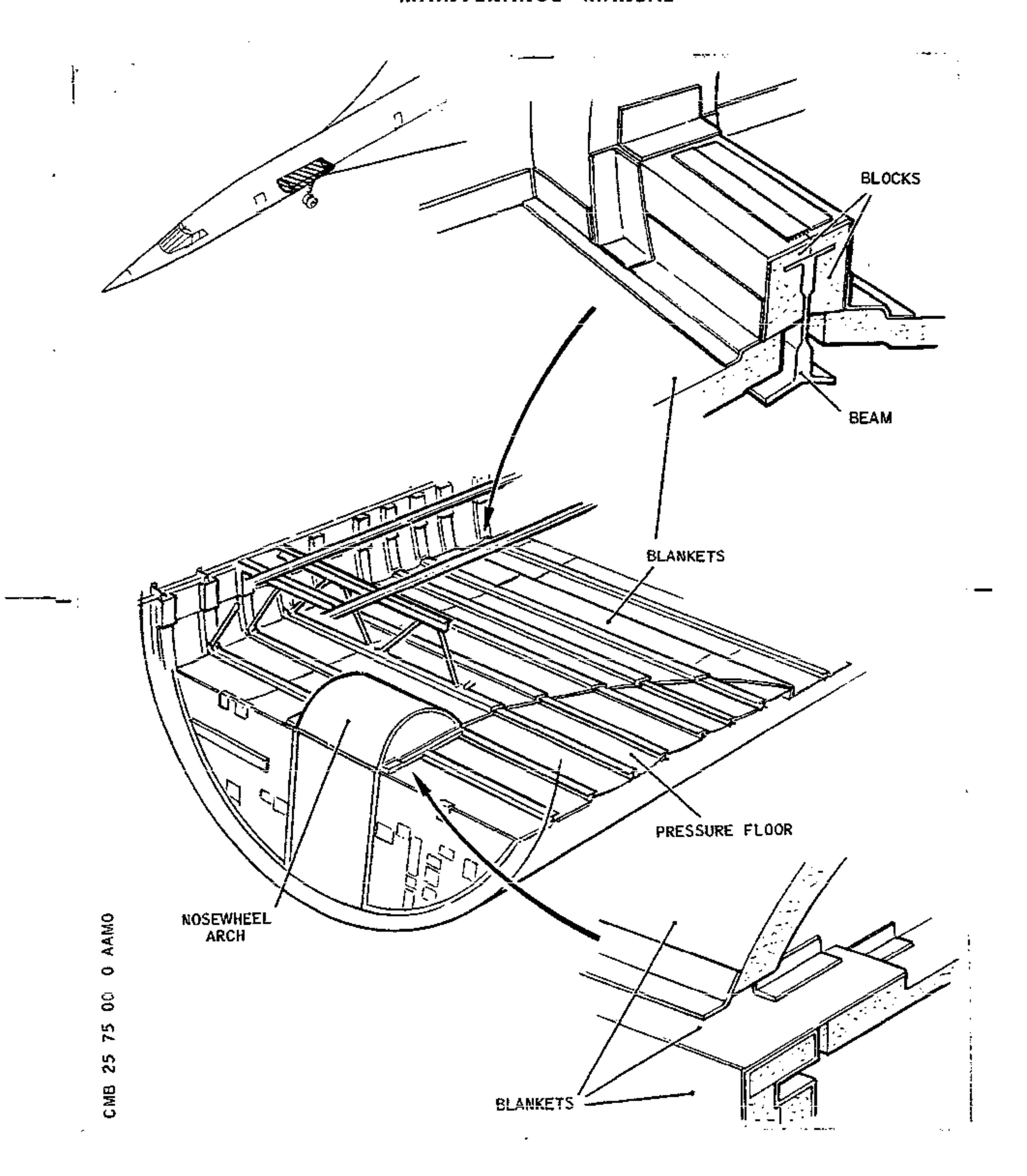
1. General (Ref. Fig. 001)

Thermal insulation is fitted to the floor and side-walls of the compartment above the nosewheel bay to provide a heat shield and acoustic barrier between the bay and the cabin floor.

2. Insulation

The insulation material consists of glass fibre packs made up into blankets and blocks of the requisite thickness and shape and covered with fireproof sheets of nomex paper and rubberised fabric. The edges of the covering material are secured either by heat or an adhesive. Velcro tape is used as the principal means of securing the blankets and blocks together and to the points of attachment.

If blankets are maltreated, folded or crushed to 75 per cent of their original thickness the insulating quality will be impaired. They can be repaired in-situ.



- Underfloor Compartment (Above Nosewheel) Insulation
Figure 001

END OF THIS SECTION

NEXT